



PUNJABI UNIVERSITY PATIALA

**Department of Distance Education
Punjabi University, Patiala**
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M.A. (EDUCATION) PART-I (SEMESTER-I)

PAPER-IV

PEDAGOGY OF TEACHING

UNIT NO. B

Lesson No. :

UNIT-B

- 2.1 : Text Book : Meaning, Importance, Types
- 2.2 : Teacher : Quality and Role
- 2.3 : Laboratory Meaning, Importance, Planning and Equipment, Management of Laboratory
- 2.4 : Audio-Visual Aids in Teaching
- 2.5 : Lesson Planning
- 2.6 : Evaluation

Note : Students can download the syllabus from department's website www.dccpbi.com

TEXT BOOK : MEANING, IMPORTANCE, TYPES AND CHARACTERISTICS

Structure

- 2.1.1 Objectives
- 2.1.2 Introduction
- 2.1.3 Meaning of Text Book
- 2.1.4 Importance of Text Book
- 2.1.5 Types of Text Books
- 2.1.6 Characteristics of Text Books
- 2.1.7 Questions
- 2.1.8 References

2.1.1 Objectives :

After Reading this Chapter student will be able to

- 1. To know about need of Text Book
- 2. To discuss the importance of Text Book
- 3. To the quantities of good Text Books.
- 4. To discuss the selection of Text Book.

2.1.2 Introduction :

A book is any written document. Through history, many different materials have been used for books such as beech bark and bamboo. As a physical object, a book is a stack of usually rectangular pages oriented with one edge tied, sewn or otherwise fixed together and then bound to the flexible spine of protective cover.

Books are the most powerful tool invented by humankind because it is a tool of the mind. The history of the book is the history of how people have shaped the intellectual tool of writing in order to make it more efficient, more versatile and easier to use.

2.1.3 Meaning of Text Book :

Texts have been defined as writing other than formal documents printed on paper parchment or similar materials. Book has been defined by UNESCO as a “non-periodical printed publication of at least 49 pages excluding

covers.” The New Encyclopaedia Britannica (1975) identified some characteristics for the text-book as follows :

1. A book is designed to serve as an instrument of communication.
2. Its use of writing or some other system of visual symbols to convey meaning.
3. Its publication for tangible circulation.

A book may be defined, therefore as a written (or printed) message of considerable length meant for public circulation and recorded on materials that are light yet durable enough to afford comparatively easy portability. Different authors have given definitions of a text-book.

According to Webster’s dictionary : “Text book is annual of instruction a book containing presentation of the principles of the subject used as a basis of instruction.”

Becon defined text book as “a book designed for class room use, carefully prepared by experts in the field and equipped with the usual teaching devices.”

According to Encyclopaedia of Educational Research, “In the modern sense and as commonly understood, the text book is a learning instrument usually employed in school and colleges to support a programme of instruction. In ordinance usage, the text book is printed, it is non-consumable, it is hard band, it serves an avowed instructional purpose and it is placed in the hands of the learner.”

2.1.4 Importance of Text-book

Text-book has a great importance in the teaching-learning process. Text books can be used in different ways in teaching. Studies at different levels can-learn more and more from the text-books. Text-books can be made more effective by using different audio-visual aids and materials. Text books provides general ideas to a teacher about the events. In the present world text-books become more important to provide the different source and related materials to the students.

2.1.4.1 For Introducing the topic

The teacher can introduce the topic to his students in a good manner with the help of text-book. Teacher can explain the terms of any subject to his students with the help of text-book. The student can check the contents, headings and sub-headings from the text-book.

2.1.4.2 For Developing the Topic

The text-book helps the teacher to develop new terms and concepts during teaching. The text-book helps the students to learn these terms and also helps them to understand the broader area of the concepts. Text-book increase the knowledge of the students about these concepts.

2.1.4.3 For Describing the Topic

The text-book makes an opportunity to describe the topic more and clear. It helps the teacher and student both to understand the terms, concepts and material more and in a clear way.

2.1.4.4 For Providing Background

The text-book provides the background about the terms, concepts and ideas of subject matter. It helps the teacher and students to study the related material from the other books. It gives new information about the ideas of any subject.

2.1.4.5 For Giving Answers to the Questions :

It helps the students as well as the teacher to give answers to the questions. It increases the power of thinking as well as of reasoning of the students. Students can find out the answers of the questions from the text-materials.

2.1.4.6 Provides Selected Matter

The text-book provide the selected material to the students. It increases the knowledge of the students to understand the other concepts based on the selected matter.

2.1.4.7 Provides Frame Work

The text-book has a systematic frame work of learning and provides the material to the students for their learning. The text-book are prepared by the different institutions on the base of their predetermined courses about the subject.

2.1.4.8 Fulfill the Objectives

Without the objectives the teacher can not make his teaching-learning process more effective. The text-book helps the teacher to make objectives. It helps the teacher to arrange the learning material according to the objectives.

2.1.4.9 As an Important Instrument

The text-book is the great instrument for the teacher. It helps the teacher for making lesson planning. It helps the teachers to organise the different activities. The teacher should give assignments to the students from the text and the students can answer these assignments with the help of text-book.

2.1.4.10 Helps to compare the students

Text-book provides the guidance to the students to learn more in school as well as at the home. The students can learn better from the text-book. Intelligent students can learn better as compared to the weaker ones from the text-book. The slow learners can study the material at home better with the help of text-book.

2.1.4.11 Provides the opportunity of self-learning

The text-book provides the opportunity to the students learn more about the subject through their own efforts. It helps the students to evaluate the given material and also to find out the specific knowledge.

2.1.4.12 Provides Specific Information

The text-book provides the basic and specific information to the learners about the learning materials. It helps the students to sum up their ideas. It gives the correct and clear concept about the events occurred, to the learners.

2.1.4.13 Helps to Generalise the Ideas

The text-book helps the students to generalise their ideas about the concepts. The students can generalise their ideas on the basis of the summary of the unit. The students can generalise some important points of the content material with the help of the text-book.

The text book, play an important role in the teaching learning process. The text-book should be written according to the objectives of the present time.

It provides a common laboratory to develop study skills. As it furnishes a common basis to master the process of reading, analyzing, outlining and summarizing.

2.1.5 Types of Text Books :-

- 1. Integrated-Skills texts :** These book provide practice in the four skills, but they are single texts rather than being part of a leveled core series.
- 2. Grammar texts :** Some books are core grammer series (going from beginning to advance) and include both presentation and practice for learners. Others are reference books not typically used as student texts, but useful for both teachers and learners as specific questions arise.
- 3. Skill-Specific texts :** These books focus on one particular skill, such as listening, reading, speaking, vocabulary or pronuciation.
- 4. Literacy texts :** Some books and other materials are designed specifically for learners who have had limited formal education (usually six or fewer years).
- 5. Content-based texts :** These books are focused on specific subject areas such as civics or citizenship, job-related topics, or academic preparation.
- 6. Dictionaries :** Picture dictionaries for beginning levels and a range of English-only dictionaries (from limited, with simple definitions to

high advanced) for other levels can be useful for learners both in and outside of class.

2.1.6 Characteristics of a Text Book

There is certain criteria for the evaluation of the Text-book. NCERT had developed a detailed criteria and it is based on the document, "Principles and Procedure for preparation and Evaluation of Text-book." These criteria help to maintain the quality of the text-books. The qualities of a good text-book are based on the criteria given below.

2.1.6.1 Academic Aspects

The text-book must cover all the topics and sub-topics and also they must provide information about the whole syllabus. The selected topics must be integrated with the activities. The content must be according to the time allotted to the subject that is the content should neither be long and nor too short. The scope of the selected topics and content must be according to the mental ability of the students. The contents must provide the opportunities to all students and the information included in the text-book must be up-to-date.

2.1.6.2 Organization of Content

The subject material or content must be organised in suitable units and chapters. The chapters should be arranged in specific sequence. The length of various topics and chapters must be appropriate. The heading of the chapter or unit must provide the central idea of the chapter.

2.1.6.3 Language

The language used in the text-book should be simple and comprehensible. The vocabulary used in the text-book must be according to the mental level of the students. The structure of sentences should be simple, short and clear. The spellings must be correct and the proper punctuation should be there so that the students can learn better.

2.1.6.4 Presentation of Content

The content should be presented in such a way that the interest of the students must be sustained throughout the book and they do not find it as a boring subject. The content must be presented from simple to complex fashion, from familiar to unfamiliar and from specific to general one. The terms should be explained in simple language and the weightage must be given to the different topics. The text-book must provide the opportunities to the student to inquire about the problems and to interpret the data. The text-book must promote the habit of self learning. The text-book should help the student to inoculate the desirable values and attitudes.

2.1.6.5 Illustration

The illustration must cover all the aspects of the content material in which illustration is needed. The illustration should be clear and accurate in all respects. The size of illustrations should be suitable that is they must not be too short. There should be proper place for the illustrations in the text-book.

2.1.6.6 Exercises and Assignments

The exercises given at the end of each chapter of text-book helps to test the student's knowledge and skills. The exercises should be according to the mental age of the students. The exercises should be such that they help the students to review and to recapitulate the contents. The language of the exercise should be simple and clear one. The exercises must promote the spirit of inquiry. The exercises should be either essay type or objective type. There should be short answers and fill in the blanks in the exercises. The exercises should be such that they must be according to the approach of each type of students.

2.1.6.7 Prelims

The title page must include the title of the book, the author's name and also publisher's name and his address. The reverse side of the title page should provide information about the year of publication, copyright price the book, publisher's name and address, printer's name and address and the number of copies and editions. The prelims includes the names of the editorial members and of other associated members. The prelims must provide the knowledge of the materials.

2.1.6.8 Back Pages

There should be Appendix on the last page which provides the knowledge about the important terms and topics. This appendix on the back pages providing information about the additional and relevant material to the main text.

2.1.6.9 Bibliography

Bibliography should be given in adequate language.

2.1.6.10 Suitable Glossary

Glossary should be given in adequate language.

2.1.6.11 Physical Aspects

The Physical aspects of the text-book are as follows :

(a) Printing Lay-out and Get-up

The design of the cover page should be attractive and appealing so that it attracts more students. The cutting and brushing of the paper must be smooth. The margins should be adequate and should be according to the

latest norms. The headings, sub headings, of the text-book must be in capital letters. The number of pages must be according to the class for which it is made.

(b) Durability

The paper used in the book should be durable so that it goes for a long time and must be according to the mental age of the students. The young students are attracted towards the colourful pages. The binding of the book should be durable and attractive. The cover pages must attract more students towards itself.

(c) Size of the Book

The size of the book must be compact enough. It should neither be too heavy nor be too thin. The table content must include the titles of the units, chapters, topics and sub-topics and also it includes the number of pages, list of tables and maps.

(d) Price

The price of the book should be reasonable, that is in accordance to the economics background of the students.

This criteria helps the authors to write better text-book and also helps in evaluating the same. The text book is a means to help the student in his study. The teacher should see that the textbook does not become the whole outline, context and plan.

2.1.7 QUESTIONS

1. What do you understand by the term Text-Book? Write down its need and importance.
2. Describe various qualities of a good text-book.
3. "Text-books are good as slaves but bad as masters" Comment.

2.1.8 REFERENCES

1. Binning, A. C. and Binning, D. H. : Teaching Social Studies in Secondary Schools
2. Shaida, B. D. : Teaching of Social Studies
3. Wesley, Bruce : Teaching of Social Studies
4. Sandhu, P. K. (2003) : Teaching of Social Studies (Punjabi)
5. Manjit Kaur, Gurmeet Singh (2004) : Teaching of Social Studies (English)

TEACHER : QUALITIES AND ROLE**Structure**

- 2.2.0 Objectives
- 2.2.1 Introduction
- 2.2.2 Qualities of Teacher
- 2.2.3 Role of Teacher
- 2.2.4 Summary
- 2.2.5 Suggested Questions
- 2.2.6 Suggested Reading

2.2.0 Objectives :

After Reading This chapter the student will be able

- 1) To understand the qualities of Teacher.
- 2) To know the role of Teacher.
- 3) To discuss about Teacher and Pupil Relationship.

2.2.1 Introduction :

The teaching profession needs dedication and a spirit of service on the part of teachers. The most important and the greatest success of the teacher depends in the achievement of aims of education. The teaching profession has developed mainly since the early 1800's. When the first teacher training schools began in Western Europe. In the recent time, most of the countries in the world started teacher training programme to fulfil the requirement of professional teachers. According to "The New Encyclopaedia Britannica (1985)," measured in terms of its members, teaching is the world's biggest profession." According to Indian Education Commission (1964-66) "A sound programme of professional education of teachers is essential for the qualitative improvement of education." Of all the different facts which influence the quality of education and its contribution to national development, the quality, competence and characters of teachers are most significant." Nothing is more important than securing a sufficient supply of good quality recruits to the teaching profession, providing them with the best possible preparation and creating satisfactory conditions of work in which in they can be full effective. In view of the rapid expansion of educational

facilities expected during the next three plans, and specially in view of the urgent need to raise standards to the highest level and to keep the continually improving these problems have now acquired importance and urgency. The efficiency of the teaching profession and its contribution to national development general and educational important in particular will depend largely on its social status and morals. This will, in its turn, depend upon two interrelated factors. Economic status and civic rights of teachers and their professional competence, characters and sense of dedication.” (Kothari Education Commission 1964-66, pp. 43 and 60). Considering the views of commission it is the teacher, who is the key to success or failure of the entire educational progress. If we want to make the students able to understand and adjust in this complete world, we will have to so in for well trained teachers in teaching profession. It is because with the passing of time scientific investigations are nothing the world smaller in terms of time and space leading of mining up of different culture, histories and cessions proditious leading to social changes. All this needs a global & outlook and understanding. His understanding of the complex problem of subject needs national as well as international outlook. The teacher subject should have a wide outlook to understand past, present and future trends in the country as a whole as well as the world prospective. According to Aggarwal there are certain criteria for teaching profession as follows :

- (a) A progress of formal training.
- (b) A body of specialized knowledge.
- (c) A procedure for certifying or validating, membership in the profession.
- (d) A set of standards of performance-intellectual, practical and ethical-that are defined and enforced by members of profession.

According to the Lord Beyce, “The teacher must have the power of realizing the dead post and should be careful about the future in a living present, must in fact have a touch of imagination, as well as a vastly larger amount of positive knowledge.”

Jacks states in his book, “Total Education”. The teacher is an interpreter- interpreting not only the experiences of his pupils but also the community to which they belong, its past no less than its present, its purposes, and its efforts to achieve those purposes, its cultural and technical achievements, it opportunities and possibilities, the invitations to service which it extends and the rewards, glittering or dimly discovered which it offers. The teacher explain life while preparing for it.

2.2.2 Qualities of a Teacher :

The qualities of the teacher are the most important factor in the teaching learning programme. The teacher must be wise, imaginative, courageous,

sympathetic, impartial, self-confident, resourceful, warm & indirect in his teaching behaviour. Unless the teacher has a will and ability to discharge his duties efficiently, he cannot prove worthy of the responsibility placed on him. To discharge his function properly and adequately the teacher subject must have certain qualities and characterise. The 15th Annual Gall up Poll of the Public's Attitude. Towards the Public School in the USA in 1983 mentioned the following qualities of a teacher.

1. Ability of Communicate, to understand and to relate.
2. Patience.
3. Ability to be firm and fair.
4. High moral character.
5. Friendliness.
6. Good personality.
7. Sense of humour
8. Dedication of teaching profession.
9. Enthusiasm

In summing up all these qualities a teacher should develop in himself/herself, which can be regrouped following headings :

1. Scholarship
2. Professional training
3. Personality
4. Teacher and pupil relationship
5. Teacher-Community relations

1. Scholarship

The teacher must have mastery over the subject. It includes the awareness of developments in the subject at a national and international level. He must develop attitudes, skills, what ever he wants to develop among his students. It means he must have up-to-date knowledge about the subject as well as the current affairs of the economy. As learning has a vast area to cover different aspects. So the teacher should also have the knowledge about subject with the knowledge of basic concepts he can understand political, economy, whereas with the knowledge of economics he can understand economic trends the position of his/her own country in the international market. As socio-political economic system of a country depends upon the educational systems of that country and vice-versa, so teacher must be a good scholar. He should develop his scholastic attitude to the maximum possible limits of his/her capacity. According to Dr. Arnold, "A teacher ought

to be”” Perpetually learning and so constantly be above the level of his scholars.”

Here a word of caution needs to be added that changes in the social set up, cultural areas, economic trends, population companion and migrations within and outside the country are adding many new dimension to the subject that the teacher needs to be an ambitious learner or his knowledge is like be become state & obsolete. This will badly reflect open the academic health of the schedule.

2. Professional Training

The teacher must have training in teaching skills to develop competency. He should be given the proper training about the latest techniques of teaching as well as about the innovation of teaching for how to use different sources. The courses regarding democracy, current affairs, events at international level must be given to student-teachers. The prospective teachers should also be given proper training for the preparation of the lesson planning. The teacher must ever be a student. He can keep knowledge alive by reading different extra reference material in the form of books, pamphlets, magazines and papers etc. The teacher can improve his professional efficiency through other sources as follows :

(a) To go through professional literature

Professional literature contains topics on tall subjects like History, Geography, Economics, Civics etc. So the teacher should go through the different periodicals which will help to keep his knowledge up-to-date.

(b) To Attend Conferences

The teacher from different areas gather in conferences and discuss practical problems and share views based on national events. They exchange their views regarding classroom interaction patterns, teaching skills, classroom problems etc. and can reach (process) a solid explanation for every aspect.

(c) Visits

To collect first-hand information on various subjects, teacher may arrange visits. The teacher can increase his knowledge about the different incidents, events and systems by making visits to the institutions of historical, political, social and economic importance. This may help the students to know, how to collect, organize, interpret, analyses and record data.

(d) To Conduct Workshop

The workshop generally have a group of experts who gather to study some educational problem. The teacher should conduct and attend different workshop to refresh and enrich his knowledge. The Government of India has opened the Institute of Advances Study in Education for carrying out

research and organising workshops etc. for the improvement of teaching learning process teachers and District Institute of Education and Training for elementary school teachers. The teacher should attend workshops conducted by these institutes and can conduct workshops with the help of other intellectuals for their own professional growth.

3. Personality :

According Allport "Personality is the dynamic organization within the individual of those psychological systems that determine his unique adjustments to his environment."

He stated that organization must be regarded as constantly changing as motivational and self-regarding that leads to dynamic personality. The individual should have better adjustment to his behaviour and geographical environment in which he is living. On the basis of this concept of dynamic personality the teacher must have the following aspects.

(a) Cognitive Organisation :

As cover a vast area of knowledge, the teacher assess the intellectual group of his subject matter. He must understand the process of concept formation as well as the process of concept attainment. He should have command over the different concepts. His/her students should learn to differentiate between right or wrong structures.

(b) Friend, Philosopher and Guide of Students :

A teacher can understand the feelings, emotions, mental health and mental level of the pupils. The classroom interaction should be congenial so that both teacher students can exchange their views for the benefits of total teaching process. He must be sincere, tactful and extend every possible co-operation to the students.

(c) Initiative Resourcefulness and Imagination :

The teacher should be able to think independently to act and decide independently. He should be resourceful to adopt his plans to changing circumstances. He should have clarity of vision. He must know what he wants and what he does not want.

(d) Optimism; Faith and self-confidence :

The teacher must be optimist about life and its realities. He must have faith in himself and his subject. He should have confidence in explaining the facts in the class. He must be indirect in his teaching behaviours so that he can accept the ideas and feeling of the pupils.

(e) Industriousness :

He must be progressive and be enthused with the desire to improve his

teaching and learning of his pupils. He should act properly, so that he can accomplish many tasks of teaching learning process at a time.

(f) Ability to Solve Problems :

He must be cool and having tolerance spirit under all provocation circumstances. He must possess ability to solve and make appropriate solutions for technical problems in instruction. In fact, a good teacher improves his own way of teaching instead of offending others everytime.

(g) Audience Voice :

The works have power is a well known fact. So a teacher should have audible voice. It should have its fairly and general pitch in order to express different technical terms in the classroom. The teacher should avoid a monotonous voice because the students will feel bore that ultimately affects poor learning.

(h) Indirectness :

It is a tendency to provide opportunities to the student to engage in over behaviour. He should justify his authority much. The students are provided with a change to express themselves initiate themselves in the classroom interaction. Their good ideas should be accepted and used in the class, to reinforce the pupils. The students must be given academic freedom to ask certain questions from the teacher.

(i) Spirit of Inquiry :

It means to inquire independently and get more knowledge. This will help to develop reasoning power and critical thinking among the students. The teaching must have the intensive study of present complexities of the society to get more new knowledge. It can satisfy his students only if he has a spirit of inquiry

(j) Proper use of Adequate Teaching Aids :

Teaching with the help of prodequate aids will induce permanent learning among the students. Therefore teacher must know the proper use of Globe, charts, maps, Time lines, models and various other aids. The teacher should correlate his teaching with the presentation of aids e.g. of today a teacher explains. The civil Station of Sindh Velly he must show the required models and charts or ornaments, instruments used for forming weapons used etc. at the same time. With side by side vision and explanation concepts becomes clear and interesting for students.

(k) Execution :

Whatever students learn from his teacher, they must know how to apply it in practice of his real life. The teacher must have the ability of execution. He should must also be enthusiastic so that the spirit of the work can be developed among his students.

The teacher should have balanced personality. A sound mind in a sound body is right in this context the teacher should be concerned enough for the physical development of his students. The teacher must have his unique personality means his views about life, spirit for work, importance of time, punctuality, creativity etc. He should try to develop these qualities among students. The teacher can develop moral, aesthetic, social and spiritual values among the students. This will help the students in developing their self expression power, boldness and healthy social relationship.

4. Teacher and Pupils Relationship :

The teacher should have cordial relations with the students. The teacher should try to win the goodwill and cooperation of students. The teacher should act as their friend in one situation and guide in another. He should not dictate things to them but encourage to explore this facts and information. He should understand their feelings, problems and behaviour with his tactful and cheerful nature. Only a competent teacher can inspires and behaviour with through his knowledge and manners. The teacher always has a direct relation with the students not only in the classroom but also outside the classroom i.e. in surrounding or the Institution. Therefore, he should create a positive and congenial environment in the classroom as well as in institution.

5. Teacher-Community Relations

The teacher should be an active member of the society so that he could become an example before his students. As school is a miniature society, the teacher must have social values like spirit of cooperation, healthy attitude towards other members of the relationship with the community in which he lives. He will become a better teacher when he will understand and serve the community better. A teacher must possess a number of social traits only then he can justify his existence as a teacher, in social studies. He must be aware of his civic rights and duties. He must have qualities of leadership. He must possess a sense of humour to interact effectively with community members. A competent teacher must have good relations with members of the society so that his qualities imbibe in the other community members for their betterment.

2.2.3 Role of a Teacher :

The role is a hidden concept relating to the ideas that the person have to expected or derived behaviour. The role of the teacher has become very challenging, complex and multifaceted on account of the vast area of social studies and innovations in the teaching learning process. The teacher has a major role in educational development adversely by opposing innovations

or nearly remaining mute in the face of a growing need for reform. His important roles are as under :

1. To Provide knowledge :

The teacher must be a student side by side. In order to remain with up-to-date knowledge, the teacher should learn continuously. He has to relate the present life structure with its previous stages. So he must have a vast stock of knowledge. He has to narrate, describe and explain facts or events. He is only to acquaint the students with certain incidents but he has also to interpret them correctly.

2. Teacher as Agent of Change :

The teacher makes interaction with the students of different ages and thought to ensure that educational objectives for the development of the nation can be achieved. The teacher as an agent for change must be flexible in his behaviour.

3. To Provide Guidance :

The teacher can guide his students effectively. He should encourage his students to act independently and think scientifically. Today the centre of education is child not the teacher. So child-centred education needs only guidance of teachers not control by them.

4. Organisation of Material :

Teacher has to select and organise subject material for every class. He has to select suitable method of teaching for every topic.

5. To understand the Psychology of the Learners :

Teacher has to transmit the knowledge according to the needs, aptitudes, interest and mental level of the students.

6. Teacher as an Agent of Cooperation with community :

As the teacher teaches his students according to the needs of the society so he acts as an agent of cooperation with community. It is the fact that when teacher takes the initiative in making educational programmes with the involvement of government agencies, and voluntary organizations, only then highly relevant programmes can be evolved and put on the ground.

7. Teachers and Problem Solving Research :

Linkage with socio-economic activity is also necessary for conducting studies and research in highly pertinent subjects.

8. Teachers to Initiate Management Change :

It is the system approach that will replace the ivory tower approach. A system

approach consists context, input, process. Output and evaluation only teacher can do this job.

If we want teachers to perform their role properly, the government must appreciate the social change through teachers and they should open minds and hearts to the new responsibilities and should discharge their responsibilities with an urgent sense of social charge considering all these role of the teachers, he should have devotion to his duty good academic record and thirst for knowledge, that is, he should also encourage and motivate his students towards learning and creative activities.

Teacher needs patience, tolerance open-mindedness and scientific attitude, critical thinking for good performance. He should develop reasoning power among his students so that they can understand every incident, fact quickly and independently. So his role is important role only for school but also for community as a whole.

2.2.4 Summary :

Teacher is pivot of teaching learning process. Teacher uses various principles, devices & teaching us to teach learners. Teacher has responsibility to shape future of nation. Teacher is expected to be fit against specific criteria. Apart from this, teacher has to play an important role in lives of learners. Teacher has to be a role model. He must possess specific professional qualification, sense of responsibility, tolerance, dedication etc. All in all, a teacher is the soul of the school.

2.2.5 QUESTIONS

1. "A teacher is the soul of the school." Describe the qualities desired for becoming a competent teacher.
2. What is meant by professional growth ? In what ways can a teacher grow professionally ?
3. "Teacher is the pivot around which the whole educational system moves." Discuss the importance of the teacher in the light of the above statement.

2.2.6 SUGGESTED READINGS

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Binning, D.H.
2. Manjeet Kaur, : Teaching of Social Studies (Eng.).
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3. Sandhu, P. K. (2003) : Teaching of Social Studies.
4. Wesley, B. : Teaching of Social Studies.

LESSON NO. 2.3**Writer: Mrs. Meenu Rohilla**

**Laboratory : Meaning, Importance, Planning and
Equipment Management of Laboratory****Structure**

- 2.3.1 Objectives of Lesson
- 2.3.2 Meaning of Laboratory
- 2.3.3 Importance of Laboratory work
- 2.3.4 Planning of laboratory
 - 2.3.4.1 Location
 - 2.3.4.2 Pupil working area
 - 2.3.4.3 Specialized area near a laboratory
 - 2.3.4.4 Minimum essential facilities
 - 2.3.4.5 Administration
- 2.3.5 Equipment Management
- 2.3.6 Summary
- 2.3.7 Suggested questions
- 2.3.8 References

2.3.1 Objectives

This lesson will help the students :

- 1) To know about usefulness of laboratory.
- 2) To discuss how to plan laboratory.
- 3) To discuss the importance of laboratory.
- 4) To know about equipment management.

2.3.2 Meaning

Laboratory contributes significantly to the development of desired cognitive, affective and psychomotor skills. Educationist have recommended from time to time improve laboratory conditions in the light of objectives to be achieved through field and laboratory activities. Laboratory work, at its best, is an

integral part of science and education program, developing naturally out of other type of activities, an in turn leading towards other forms of class work. Certain studies in India point out that laboratory work is mostly done in big rooms and 90% of schools lack adequate infra-structure and learning resources. Imagination and good problems solving attitude have to be used to design laboratory activities in light of present needs & present condition of Indian laboratories in schools and colleges. Laboratory is a place where students learn to handle apparatus, think independently and draw conclusions on the basis of practical observation. This develops self-confidence and independent attitude in them. Practical work is even more important because of the fact that “Learning by doing” concept for scientific principles is rendered more meaningful. This is because an object handled has more lasting impression on the mind than an object merely seen from a distance. If the student is able to observe what he has read, the knowledge which is a combination of theory and practice becomes ‘fixed’ in his mind. Theory and practical work should be co-ordinated and complemented. ‘Laboratory is a place for experience in search of meaning’. A student of science learns the skills of thinking, reading, consulting and experimentation in a laboratory.

2.3.3 Importance of Laboratory Work

The main importance and objective of laboratory are:-

- a) Verify the facts taught in theory classes.
- b) Develop the habit of doing independent work among subject.
- c) Discuss intelligently with peers and adults about the outcomes & meaning of investigations and re-investigate to resolve contradictions if any.
- d) Create interest in subject.
- e) Prepare students for higher studies.
- f) Develop skills in handling specific apparatus and equipment.
- g) Improve observation and critical thinking.
- h) Develop the habit of reasoning.
- i) Avoid memorizing the subject.
- j) Create interest for research.
- k) Have a clear understanding of concerned subject & other concept.
- l) Develop habit of doing systematic work.
- m) Develop interest in natural phenomenon & acquire the knowledge.
- n) Understand the limitation of small number of observation in generating scientific knowledge.

2.3.4 Planning of Laboratory

Laboratories have been proposed by authorities from time to time keeping in view the objectives of Laboratory work at a particular time. Location, pupil, working area, specialized areas in or near a laboratory

are basic components of laboratory. A brief description of there is as follows:

2.3.4.1 Location

The laboratory must be located on the ground floor so that green house is easily accessible to laboratory. Laboratory location should be away from music room, gymnasias, craft room, workshop and other noisy places. It should be attached to lecture room, connected with preparation room and access able to the store room.

Preparation Room : This may be small room for the collection of apparatus to be used in a laboratory or lecture room. Apparatus which has been specially fitted up for a continuous/unfinished experiment can be kept there. A laboratory assistant, or a teacher can work in preparation room without occupying space in a laboratory or disturbing a class in session. There should be separate preparation room which should be equipped with all services like lightening, gas, electricity, sink and waste disposal arrangements. Adequate provision should be there for benches, shelves and cup boards. Some space should be fixed for laboratory assistance whose role in the management of a laboratory is significant.

Lecture Room : It is usually arranged with a demonstration table in front of a large black board. The size of the board should be 10'X4', bottom of which should be 3 ft. higher than the floor. The demonstration table should be large. Seating arrangement of benches and stools should be in tiers so that every pupil is able to observe the demonstration given by teacher. Black-board there should be a white sheet rolled up, to be used as screen for projection(s). A lecture room should be provided with window blinds or black curtains so that the room may be darkened for projections when required. Size of the lecture room should be 400sq. ft. in area.

Store Room : As the name indicates, this room is used to store materials which are distributed to the other rooms as and when they are required. Adequate size is 16 feet X 12 feet.

2.3.4.2 Pupil Working Area

Students require a working space that can be used for different activities. The major facilities required for this area are:

- 1) Sufficient space for working tables and stools is required.
- 2) Working tables should be such that their surface may not be affected by anything.
- 3) Working tables and stools should be arranged in a manner to facilitate class movement from one place to another. Students should feel comfort while sitting. Working tables should be provided with drawers, cupboards etc.

- 4) Dimensions of working tables may differ according to specific requirement.
- 5) Fixed working tables can be provided with services like gas, electricity and water.
- 6) Sunlight is not suitable for microscope work & can even be dangerous.
- 7) Only small windows should be provided and arrangement for artificial light should be made. Such lamps are necessary for microscope work.
- 8) The glassware and other essential items should be kept in storage space provided in tables or nearby area. The movement for this purpose, from room to another room should be avoided.
- 9) A wall clock should be provided in a laboratory. Certain experiments require periodic observations. In such cases and otherwise also a wall clock is basic necessity.
- 10) All the window should be filled with window-blinds and / or heavy, thick black curtains.
- 11) Many plug points should be provided along with walls only about a foot higher than the floor.

2.3.4.3 Specialized areas in near a laboratory:-

a) Demonstration Area

A demonstration table is an important component of all laboratories. This table should be of same height as that of student working table. It should be of good size (minimum 3mX0.5m) and provided with a sink, water, gas and electricity (15amp and 5amp). Facilities for overhead projector and slide projector should be provided. Demonstration table should be near a blackboard of a size 3mX1m.

b) Cleaning and Disposal Area

Water pipes and Drains:- Four or five inch pipes should be used for drainage. Pipe fittings should be accessible position. Drains should be covered with wooden boards, flush with floor and easily removable for inspection. Under ground fittings should be avoided. Wire baskets and plastic container can be placed at suitable place for waste disposals.

c) Project and Long Term Investigation Area

There must be provision for an area for student projects and investigations.

d) Reference area

There should be provision for reference area so that students may consult books on spot. Ideally, there should be housed in small reading area accessible both to student and teachers.

e) **Lightening and Ventilation** : The arrangement of doors, windows and ventilators, described above has an advantage of natural light and good ventilation. If this is not done, artificial light by florescent bulbs or tube light, and ventilation through exhaust fans has to be provided. The schools in the rural areas may not afford this extra expenditure. Moreover, constant electric supply and proper voltage is not guaranteed for their effective.

f) **Living Organism Area**

Separate green house should be developed for the maintenance of essential plants.

2.3.4.4 Minimum Essential Facilities

- 1) Tables (6'x2'x2^{1/2}) with sink and drawers.
- 2) Almirah
- 3) Stools
- 4) Forgery
- 5) Microscope, charts etc.
- 6) Aquariums
- 7) First aid box
- 8) Minimum possible provision for store cum preparation room, student working area and free house.

2.3.4.5 Administration

- a) There should be a provision for laboratory attendant and a store keeper.
- b) General safety rules must be displayed.
- c) Student should maintain record of practical.
- d) Practical should be performed individually as far as possible.
- e) There should be at least one double period for practical work.

Basic components and specific laboratory planning with special reference to India to be linked with new trends at the international level to improve the condition of laboratories in Indian colleges and schools.

1) **Provision for individualize instruction**

Modern curricula demand the provision of physical facilities not only for demonstration purpose but also for individuals and group investigations and projects.

2) **Extra equipments and materials**

There is a general trend to manage the extra equipments and materials to meet the demand developed due to changing condition in enrolment.

3) Mobile arrangement

Sometimes, the basic equipment may be required at some other place within laboratory or outside in view of teaching demands. So mobile arrangements for such equipment and materials should be made.

4) New lay out plans

There can be one common space for storage for two or more laboratories.

5) Educational technology

Overhead projections, micro- projections, slide projections and other audio visual aids are being incorporated as permanent or partially permanent equipment in science laboratories.

6) Flexibility

- a) Students should be able to move from one work to another work area without any difficulty.
- b) Students should be able to move from class to laboratory activities within a single room.
- c) The demonstration setup should be established easily in several areas in the laboratory.
- d) The layout of room should be such that we may not difficulty in moving for guiding students.
- e) If need arises, there should be sufficient space for adjusting extra working tables.
- f) The working tables should be mobile so that these may be adjusted according to the requirement for group work or individual work.
- g) The table should be usable both for class and practical work.
- h) There should be sufficient space for display boards.
- i) There should be a dark room, a preparation room, a growing room and a project room.

2.3.5 Equipment Management

Care of equipments and apparatus is one of the function of laboratory master. For this, almirah should be checked at regular intervals. During this checking operation the apparatus should not only be inspected but it should also be dusted cleaned and polished if necessary. If proper care is taken life of apparatus will increase. Proper upkeep and maintenance of following points be kept in mind.

1. The apparatus should be properly cleaned before it is returned to its proper place. Never return dirty apparatus to its proper place. This is specially applicable in case of glass apparatus used in laboratory for proper cleaning of glass articles we can make use of soap, pumice stone, hot alkali solution, acidified potassium dichromate solution etc.
2. The broken articles should be immediately prepared or replaced.

3. Iron articles are generally polished. For polishing such articles use black Japan thinned with little turpentine or kerosene oil. Aluminum paint can also be used, use of kerosene oil can also be done for removal of rust.
4. Apply Vaseline on screws and hinges of iron articles during rainy season.
5. There should be permanent, breakable, consumable stock register. There should be space between the entries of registers so that additions can be made under the same heading without disturbing the whole page.
6. For cleaning items made of brass should be cleaned with brasso.
7. The top of each laboratory table is unpolished, but it should be waxed to avoid action of any chemical or acid. For waxing paraffin wax or candles can be used. With the help of painter brush and it is then spread over and smoothed using hot iron washer man, then dry and excess waxed is scrubbed off with blunt knife.
8. The top of the laboratory tables should be coated with molten wax to avoid corrosion.
9. Special attention be paid to keep sink clean. For cleaning sink use vein powder or some other cleaning powder. Use special chemicals for removal stains if they persist.
10. Wooden articles be left in sun after being polished with spirit polish. It can be made by dissolving shellac in methylated spirit. One or two coating it are then applied on the articles.
11. The apparatus which is frequently used by the students may go out of its proper adjustment and a good master must find time for its proper adjustment.
12. For laboratory must be equipped with a tool kit containing usual hammer, wrenches, pliers, screw driver etc.
13. For cleaning of glass apparatus in general and burette and pipette in particular use of solution of.
14. It is desirable to maintain a separate stock register for equipments. Register should indicate name of register and school or college, date of opening or closing the register.
15. Order register, requirement register, requirement register should be separately maintained.
16. Charts, diagrams, pictures should be displayed in laboratory which should be related to the concerned subject.
17. Bulletin board should also be in laboratory.

India is a developing country and so we have only limited financial resources. For imparting effective and efficient education, financial constraints we require production of improvised and inexpensive learning aids. A teacher with some ingenuity and manual skill can make a number of valuable and serviceable articles from discarded things all around him.

2.3.6 Summary

For an effective teaching adequate apparatus and chemicals are indispensable. Objectives of laboratory and field work can be achieved through various type of laboratory and field activities such as verification type, inductive type, deductive type, problem solving type, exploratory type and psycho-motor skill development type. The laboratory work contributes to learning in various ways. For instance, it develops a habit of independent work, logical thinking, interest in subject, skill pertaining to practical work, functional understanding of theory etc. New trends in laboratory planning are space and equipments for individualize instruction, extra equipment and material to meet the requirement due to increased enrollment, mobile arrangement of basic equipment and materials, new layout plans, use of educational technology and flexibility. The survey of laboratory in India reveals that steps are needed to improve laboratory conditions in Indian schools and colleges. Combine lecture room cum laboratory has many advantages such as most efficient, more economical, compact seating accommodation, furnished easily with a low cost.

2.3.7 Suggested Questions

1. Write the meaning of laboratory
2. Which are the factors to be kept in mind while selection of apparatus and material?
3. Write about demonstration area of laboratory?
4. How will you care and maintain the apparatus in your Laboratory?

2.3.8 References

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2. Gupta, V.K : Teaching and learning of Science and Technology, Kurukshetra, 1995, Ch. 11, pp. 228-232.
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AUDIO-VISUAL AIDS IN TEACHING

Structure :

- 2.4.0 Objectives
- 2.4.1 Audio Visual Aids
- 2.4.2 Importance of Audio Visual Aids
- 2.4.3 Types of Aids
 - 2.4.3.1 Visual Aids
 - 2.4.3.2 Audio Aids
 - 2.4.3.3 Audio Visual Aids
 - 2.4.3.4 Other Aids
- 2.4.5 Suggested Questions
- 2.4.6 Suggestions For Further Reading

2.4.0 Objectives :

This Chapter will enable the students :

- 1) To know about importance of Audio Visual aids.
- 2) To know about types of Visual Aids
- 3) To describe role of Computer in teaching
- 4) To effectively use audio Visual aids.

2.4.1 Audio-Visual Aids in Teaching

Gone are the days when the teacher taught the pupils of “word of mouth.” Now education has become so popular and widespread that exclusively oral teaching is not possible. It is essential that the learners should be motivated to receive the knowledge and audio-visual aids serve this purpose to some extent. According to Burton, “Audio-Visual aids are those sensory objects or images which initiate or stimulate & reinforce learning.”

2.4.2 Importance of Audio-Visual Aids :

Audio-visual aids are helpful in teaching any subject but they have special importance in every class where the learner's experience is not so very direct as in learning mother-tongue. In class, the aids serve the following purpose :

1. Aids provide variety and keep the learners lively and interested in their lesson.
2. Aids make an appeal to the senses of the learners and, develop interest in their lesson.
3. With the help of aids, the teacher can create new situations and the learners can have a feeling that the subject matter is directly linked with real life situations.
4. Aids help in creating language atmosphere in the class. Even simple aids charts and pictures enable the learner to live, as it were, in the atmosphere of the language itself.
5. The use of aids helps the teacher to avoid over dependence on theory.
6. The burden of the teacher is reduced because he has to talk less when he makes use of various aids in the class-room.
7. The use of aids brings clarity and understanding to the various difficult language items and, thus, much of the time and energy of teachers and student may be saved.
8. Aids stimulate the interest of the learners and inspire them to go deep into the knowledge gained by them in the class-room.
9. These help the teacher in fixing the matter in the minds of the learners because things learnt with attention have better retention.
10. A language is the result of customs, traditions and culture of a nation and these can be expressed with the help of aids.
11. The use of aids also provides some entertainment to the learners. Comenius observes, "The foundation of all learning consists in representing clearly to the sense, sensible objects so that they can be appreciated easily."

2.4.3 TYPES OF AIDS :

Aids can be classified as (a) Visual-aids, (b) Audio-aids and (c) Audio-visual aids.

(a) Visual Aids : These are aids that can be seen. These include black board; charts, models, pictures, film strips, flash cards, flannel board, epidiascope, etc.

(b) Audio Aids : These are the aids that can be heard. These are gramophone, tape recorder, radio etc.

(c) Audio Visual Aids : These are aids that can be seen as well as heard. Film and television are audio-visual aids.

2.4.3.1 VISUAL AIDS

1. Black Board : Black Board is the cheapest visual aid. Even the most poorly equipped class-room contains a black board. It can be of different types i.e. wall, standing, revolving and rolling. Now, instead of painting the board black, it is sometimes painted green because green colour is more refreshing than the black one. So black board is also known as chalk board.

It can be used for various purposes :

- (i) A good model of handwriting can be presented before the learners on the black-board.
- (ii) Situations can be created on the black-board through stick figures.
- (iii) The hands of small children can be trained with small black boards and coloured chalk especially designed for them.
- (iv) Specific points of a lesson may be highlighted on it.
- (v) Simple diagrams, formulas, equations, structures, maps and pictures may be drawn on it to clarify an idea.
- (vi) Important points of a lesson may be summarized on it.
- (vii) It can be used for teaching simple grammatical forms, such as active and passive voice and various tenses.
- (viii) The rules of spelling can also be illustrated with the help of black-board. Bhandari, Hinkley and Ram observe. "Reading from the board helps to fix in the mind the spelling of words and their order in phrases and sentences."

F.G. French has given the following rules for the use of black-board :

- (i) Keep it neat and clean; everything put upon it must be written or drawn with care.
- (ii) Not too much, not too little.
- (iii) See that it is in the right place; walk round the class to make sure that sunlight is not shining upon it and hiding what is written upon it from some pupils.
- (iv) Know what you are going to put on it before you begin.
- (v) Draw pictures, diagrams and tables.
- (vi) Use coloured chalks, but not too many, those because are expensive.
- (vii) Let your pupils use the board as often as you use it yourself. Let them write and draw on it, sometimes for the class, sometimes for you.

2. Charts : All the teachers are not expert in drawing diagrams and figures on the black-board. Moreover, various details cannot be shown with the help

of such diagrams and figures. For these purposes, charts should be made use of. Charts can be used for teaching words, structures, elements of grammar, composition and many other forms of teaching.

A chart may be divided into four or six parts and different stages of a story are depicted on these portions. The teacher shows these portions of the chart one by one and develops the story. A well labelled diagram can be drawn on chart for better clarification.

Some commonly mis-spelt words are written on a chart, which is hung in the classroom. The pupils learn the spellings of these words by having a look at the chart.

Good handwriting of some students may be displayed on a chart. It will inspire other students to improve their handwriting.

A chart displaying international phonetic alphabet may be hung at a prominent place in the school for the improvement of spoken English.

3. Models : Sometimes, actual objects are not available or cannot be brought in the class-room. In that case their models, cut out of paper or card board or made of clay, serve the purpose. A dog cannot be, rather should not be brought in the class-room in the form of models. In F.G. French's opinion, models can be used for telling stories, for conversation and for making the abstract language real. However, the teacher should be careful that models are not mistaken by children for real things.

4. Pictures : There is a Chinese saying, "A picture is worth ten thousand words." Pictures are very useful for teaching English. Those may be cut out from magazines, news-papers, pamphlets etc. Those help the teacher to avoid verbalism in his teaching by giving reality to what he is explaining. Those can be used in the following way :

- (a) New words and phrases can be explained with the help of pictures. Name of those objects which cannot be brought into the class can be taught through pictures. Actions which cannot be performed in the class-room can be shown through pictures.
- (b) Wall pictures can be helpful in teaching new structures. Pictures can be used effectively for teaching stories and essays. For example, 'The Thirsty Crow', 'A Scene at the Bus Stand' etc can be developed with the help of pictures.
- (c) Pictures can be used for teaching prose lessons. At the time of introducing a lesson and during the explanation of different paragraphs, use of pictures is quite helpful.

- (d) Pictures can be used to teach cultural content in the language. While reading about winter in England, the consultation of a dictionary cannot tell what actually happens in winter time. How horrible winter is in England can only be known with the help of pictures.
- (e) Pictures can be used to explain Biographics & autobiographics.
- (f) Enlarged parts of anything can be shown in picture.

5. Film Strips : Film strips, a series a picture frames, can be used on a projector and can be kept on the screen as long as it is needed. The learner's attention is focused on the picture and the teacher's voice goes on explaining the things.

Vocabulary items can be taught with the help of film strips by showing a series of strips illustrating object not found in the class-room. A Story can also be taught with film strips and the teacher gives the comments side by side.

6. Flash Card : Flash cards are strips of chart to thick paper and are quite useful for teaching various subjects :

- (a) The pupils are given word cards and asked to arranges so as to form a sentence written on the black-board. This exercise helps in word recognition.
- (b) Some questions are written on the flash cards which are flashed before the students one by one. The students are required to speak out the answers to these questions.
- (c) The pupils are introduced to silent reading by asking them to read the order silently and obey the order, e.g. Open the door, Switch on the light etc.
- (d) Something is written in a beautiful handwriting on the flash cards and the students are required to write in the same manner. It will help them to improve their handwriting.
- (e) Flash cards can also be used for team competitions. A class may be divided into two teams. Flash cards are shown to the groups of students one by one and they try to read out as quickly as possible.

7. Flannel Board : In addition to a black-board a good class room should also have a flannel board. A piece of flannel is pasted on a piece of plywood and the flannel board is ready. Words, sentences or pictures cut out of thick material are made to stick on its surface with the help of pins or with sand papers put on their backs. These can be taken off the flannel board when desired.

A flannel board can be used for various purposes like teaching preparatory reading colour recognition, word and sentence formation, story telling etc.

8. Epidiascope : The epidiascope is an easily operated visual aid that can be used for several types of language lesson. Opaque pictures can be projected in their enlarged form with the help of this aid. Sometimes, a diagram given in the book is quite complex and cannot be drawn easily on the black-board. In this case, and also for showing photographs or hand written sketches of various items related to different topics, an epidiascope can be used profitably.

2.4.3.2 AUDIO AIDS :

1. Gramophone : Gramophone is a very useful aid and life and colour are added to the lesson through it. Many linguaphone records for learners have been prepared under ideal conditions and are suitable for various types of subject work. This aid is quite useful for teaching sounds and sound combinations and for correcting speech disorders. Even the teachers can benefit considerably from these records because they can listen to the sounds of native speakers of England. The pupils can learn stress, rhythm and intonation if they get opportunities of listening to a gramophone. Gramophone records are always accompanied by booklets giving the complete details of their use.

2. Tape recorder : Tape recorder is a thing of great utility. It can be used in many different ways in the class-room.

It can be used for recording the speeches of experts and these can be used for teaching to the students. Radio programmes can also be recorded.

It can be used for improving pronunciation of the students. The tape records a pupil's voice and reproduces it before him and, then, the teacher tells him where he has made a mistake. The use of stress, intonation, rhythm etc. can also be taught to the pupils. It can also be used for teaching the pupils how to recite a poem and how to read a prose passage.

S.R. Ingram rightly says, "If used intelligently, the gramophone and the tape recorder can help the teacher to provide a wider range of linguistic experience, variety in material and style and a real stimulus to individual effort."

3. Radio : Radio can be used effectively for teaching. Listening and speaking abilities of pupils can be improved with the help of a radio. The pupils can listen to news and other programmes broadcast on the radio and, thus, they learn correct pronunciation.

A few programmes are broadcast by the All India Radio. Keeping in view the requirements of English, these programmes are prepared mostly by the R.I.E.'s B.B.C. also broadcasts many such programmes and it has been called

“the largest language teaching enterprise in the world” because of its English lessons.

Interesting talks of eminent persons can be broadcast for the benefit of student as well as teachers.

Stories in dramatic form can also be broadcast on the radio.

A radio is easily available and should be made an effective means of teaching English to the learners.

S.R. Ingram says, If used intelligently, the gramophones the tape recorder can help the teacher to provide a wider range of linguistic experience, variety in material and style & a real stimulus in individual effort.”

2.4.3.3 AUDIO-VISUAL AIDS

1. Films : Films are considered mainly a source of entertainment. But they can also be used effectively for educational purpose. They bring before the pupils the situations which look real. They provide interesting and direct experiences to the pupils.

Films can be used for improving the learning among pupils and acquainting them with foreign background. Stories can be properly taught with the help of documentary films. However, the film show should be followed up by activities like discussions, summaries, supplementary reading etc.

There is a great need of more educational films, particularly for less teaching interesting matter.

2. Television : Television, which is generally used for seeing films, serials and chitrahar, can be profitably used for teaching. It is a better aid than the radio because in addition to the sense of hearing, it appeals to the sense of sight.

It can be used for improvement of listening and speaking abilities. Good handwriting can be shown on a T.V. screen. The pupils can improve their handwriting by looking at it and doing the needed practice. Stories can be taught in a dramatic form on the T.V. Essays like ‘A visit to Taj Mahal’ can be taught in an interesting manner with the help of T.V.

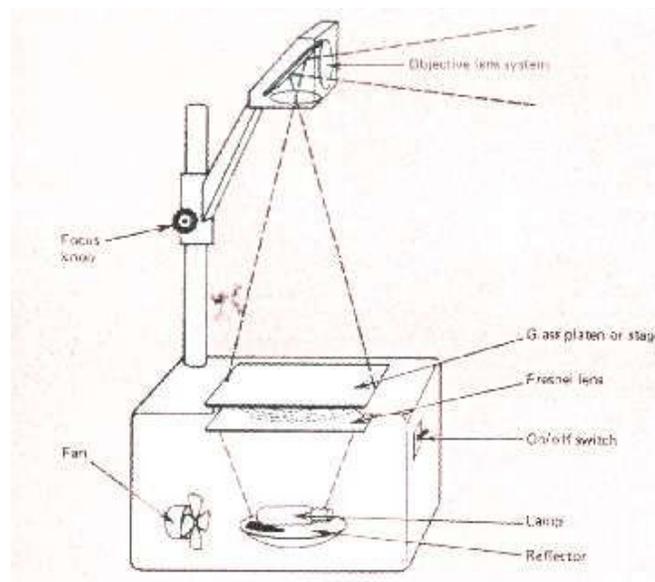
A television is much like a real teacher, though of course, he cannot know the reactions of the pupils.

Television being an expensive aid, it is generally not used in the schools, but the time will come when it will become the most popular instructional aid.

3. Overhead Projector : The overhead projector is a very simple device. Basically, it is a box with a large aperture or “stage” on the top surface. Light from a powerful lamp inside the box is condensed by a special type of lens, known as a *fresnel lens*, and passes through a transparency (approximately 8

by 10 inches) placed on the stage. A lens-and-mirror system mounted on a bracket above the box turns the light beam 90 degrees and projects the image back over the shoulder of the presenter.

Because of the widespread familiarity of overhead projection, the general term *transparency* has taken on, in the instructional setting, the specific meaning of the large-format 8-by-10-inch film used with the overhead projector. Transparencies may be composed of photographic film, clear acetate, or any of a number of other transparent materials capable of being imprinted with an image by means of chemical or heat processes.



The teacher may write or draw on a transparency and project it on to a screen. The transparencies can easily be added to, while the lesson is in progress. The overhead projector is a very useful alternative to the blackboard in that the teacher does not have to turn his back on the students. The teacher can save time by preparing the material in advance. Another advantage over the blackboard is that the OHP does not have to be cleaned and there is more space available. It is used in much the same way as the blackboard—for writing model sentences, presentation, explanation, drills, pictures etc. Some commercially produced transparencies are also available. Overhead projector transparencies can be flexibly used.

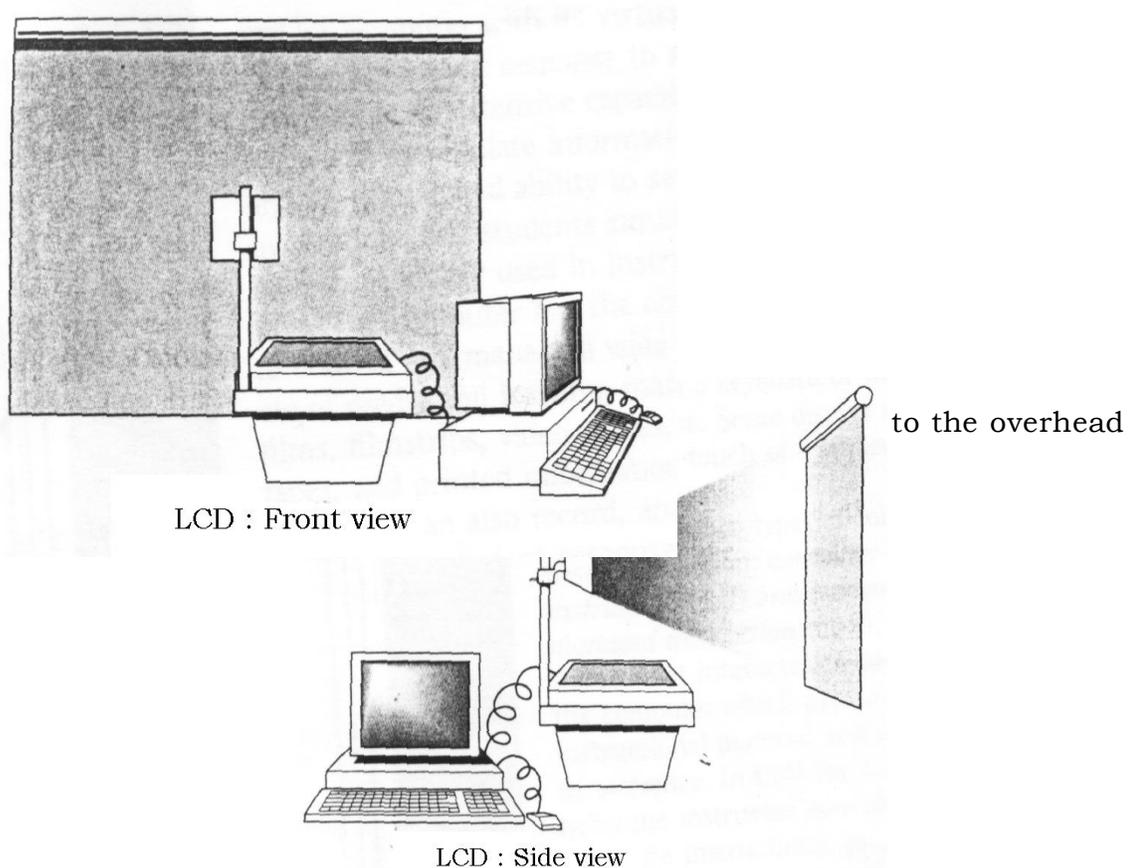
LCD Projector :

Liquid Crystal Display (LCD) panels are an inexpensive way to project computer images onto a screen. They are the electronic equivalent of an overhead transparency. The computer provides the text and graphics while a

standard overhead projector provides the light that shines through the panel to project the image on the screen.

Their limitations include limited color, lack of brightness, low contrast, low resolution, and lack of compatibility with some computers. Less expensive models are monochrome. More expensive models can project colors. Because of the low brightness and lack of contrast, the maximum screen width (image size) should be one-fourth the distance to the farthest viewer (as opposed to one-sixth for other projectors).

LCD panels are best suited for small and mid-size groups (up to fifty people). The computer can store “overhead transparency” content and project it electronically at the push of a key. New information can be displayed on command with the push of another key. You can make changes on the spot so LCD panels are ideal for what-if situations and interactive presentations. During computer software training, computer screen displays can be projected for all to see and discuss.



projector, or the LCD panel and overhead projector may be combined into a single piece of equipment. Other models incorporate three LCD panels (one each for red, green, and blue) to provide full-color images. Some models have an “active matrix” and can also project full-motion, colour video from tape or disc.

Computers :

The computer with its virtually instantaneous response to student input, its extensive capacity to store and manipulate information, and its unmatched ability to serve many individual students simultaneously is widely used in instruction. The computer has the ability to control and manage a wide variety of media and learning material– films, filmstrips, video, slides, audio-tapes, and printed information. The computer can also record, analyse, and react to student responses that are typed on a keyboard or indicated with a mouse. Some display screens react to the touch of a student's finger.

There are two types of computer-based instruction : *computer-assisted instruction (CAI)* and *computer-managed instruction (CMI)*. In CAI the student interacts directly with the computer which presents the instructional material and controls its sequence. In CMI the computer helps the instructor administer and guide the instructional process. The student does not necessarily interact with the computer system. The computer stores information about students and about relevant instructional materials which can be retrieved rapidly. The learner may be on-line to take tests. In addition, the computer can diagnose the learning needs of students and prescribe optimal sequences of instruction for them.

Advantages of Computers :

The interactive nature of computers in instruction underlies most of their advantages. As an active mode of instruction, they require learner participation (the R of the ASSURE model). Specific advantages are the following :

* Simply allowing students to learn at their own pace produces significant time savings over conventional classroom instruction. Computer-based instruction allows students some control over the rate and sequence of their learning (individualization).

* High-speed personalized responses to learner actions yield a high rate of reinforcement.

* The patient, personal manner that can be programmed provides a more positive affective climate, especially for slower learners. Mistakes, which are inevitable, are not exposed to peers and therefore are not embarrassing.

* Computer-assisted instruction is effective with special learners at-risk students, students with diverse ethnic backgrounds, and disabled students

because their special needs can be accommodated and instruction proceeds at an appropriate pace.

* Colour, music, and animated graphics can add realism and appeal to drill exercises, laboratory activities, simulations, and so on.

* The record-keeping ability of the computer makes individualized instruction feasible; individual prescriptions can be prepared for all students (particularly main-streamed special students), and their progress can be monitored.

* Computers can provide coverage of a growing knowledge base associated with the information explosion. They can manage all types of information: graphic, text, audio, and video. More information is put easily at the instructor's disposal. Computers also provide a broad diversity of learning experiences. These learning experiences can utilize a variety of instructional methods and can be at the level of basic instruction, remedial, or enrichment.

* The computer provides reliable and consistent instruction from learner to learner, regardless of the teacher or trainer, the time of the day, or the location.

* Computer-based instruction can improve efficiency and effectiveness. Effectiveness refers to improved learner achievement, whereas efficiency means achieving objectives in less time or at lower cost.

* One serendipitous effect of working with computers is that they literally force us to communicate with them in an orderly and logical way. The computer user must learn to communicate with explicit, exact instructions and responses. Any departure from precision is rejected by the computer.

* Computer users learn keyboarding or typing skills. Now very young children as well as adults are developing these skills in order to communicate with computers.

* With the advent of easy-to-use authoring systems, some instructors can develop their own customized computer-based learning programs.



Summaries of research with students at various levels—elementary, secondary, college, and adult education—show that computer-based instruction generally has positive effects on student achievement. One set of summaries by James Kulik and colleagues concluded that, on the average, computer-based instruction assisted students in raising, their achievement test scores by 10 to 18 percentage points compared with conventional instruction.

Limitations of Computers :

As we have seen with all the other media and technological innovations, there are always trade-offs to be made and limitations to consider. Some of the major limitations of computers in instruction are as follows :

- * Careful consideration must be given to the costs and benefits of computers in education and training. Computers, software, and maintenance are the major cost factors, especially if equipment is subjected to heavy use.
- * Compatibility is a problem. Software developed for one computer system usually cannot be used with another. The ease with which software can be duplicated without permission has inhibited some commercial publishers and private entrepreneurs from producing and marketing high-quality instructional software.
- * Users, both learners and teachers, may have unrealistic expectations for computer-based instruction. The view computers as magical and expect learning to happen with little or no effort. Learners and teachers derive benefits proportional to their investments.
- * A limited range of objectives can be taught by computers. Most computer-based instruction does not teach effectively in the affective, motor, or interpersonal skills domain. Even in the cognitive domain, programs tend to teach at the lower levels of knowledge and comprehension.
- * Design of instructional materials for use with computers can be a laborious task, which often requires a high level of expertise by the developer. Consequently, quality computer-based instruction is expensive.
- * Creativity may be stifled in computerized instruction. The computer is slavish in its adherence to its program. Creative or original learner responses will be ignored or even rebuked if the program's designer has not anticipated such possibilities.
- * Computer-based instruction often lacks social interaction. Learners tend to work on their own at a computer, and there is little if any face-to-face interaction with teachers or other learners.

* Some learners, especially adult learners, may resist the linear, lockstep control of the learning process typical of computerized instruction. Adult learners may feel they can skim or read pages of a book faster than the computer presents the information.

* The novelty associated with CAI in its earlier days seems to be decreasing. As learners become more familiar with computers in the home and the workplace, the newness of the stimulus wears off and has less motivational value.

In the end, we can say, "Like all man's works, they are both good & bad. It is the teacher's responsibility to use them to achieve better results with less efforts.

2.4.4 OTHERS AIDS

In addition to the aids described in the preceding pages, there are some technological aids among which language laboratory occupies an important place.

LANGUAGE LABORATORY

A. S. Hays writes, "A language laboratory is a class-room containing equipment designed and arranged to make foreign language learning more effective than is usually possible without it."

A language laboratory is a room equipped with electronic devices for recording or reproducing speech. The learners sit in sound proof cabins where they can listen to a master tape and record their own responses. The expert, who controls the operation, can communicate with any learner he likes and, thus, help him in his work.

Pronunciation, stress and intonation of the learners can be improved in the best possible manner with the help of a language laboratory.

A language laboratory has been set up at R.I.E., Chandigarh and there is a great need of setting up more laboratories in the region.

Prof. Mofat has encouraged the use of laboratory. In his opinion, the best characteristics of all educational methods are included in the laboratory method. It provides for development on the basis of individual differences, co-operation, interest, attitudes, habits, skills & ideals. Specially, laboratory method is based on problem solving, observed study & socialised circumstances.

2.4.5 SUGGESTED QUESTIONS :

1. What is meant by audio-visual aids ? What different aids can be used for teaching and for what purpose ?

2. Which are audio-visual aids of special importance in the teaching of English ? How will you use the following aids effectively for teaching English ?
- (a) Flash card (b) Tape recorder
(c) Television (d) OHP and
(e) Computers

2.4.6 SUGGESTIONS FOR FURTHER READING

1. C.S. Bhandari, : Teaching English (Chapter VI)
V.K. Hinkley and
S.K. Ram
2. M.S. Sachdeva : Teaching of English in India (Chapter XIII)
3. R.K. Jain : Essentials of English Teaching English
(Chapter VIII)
4. K.K. Bhatia : New Techniques of Teaching English as a foreign
language. (Chapter XVII)
5. A.L. Kohli : Techniques of Teaching English. (Chapter XIV)
6. Heinich : Instructional Media and the New Technologies
Molenda & Russell of instruction
7. B. Salim : A companion to Teaching of English

LESSON PLANNING

Structure

- 2.5.0 Objectives
- 2.5.1 Introduction
- 2.5.2 Need of Lesson Planning
- 2.5.3 Importance of Lesson Plan
- 2.5.4 Principles of Lesson Plan
- 2.5.5 Aims of Lesson Planning
- 2.5.6 Steps for Lesson Planning
- 2.5.7 Outline of Lesson Plan
- 2.5.8 Suggested Questions
- 2.5.9 Suggested Books

2.5.0 Objectives :

After Reading this chapter the students will be able

- 1) To know the meaning and importance of Lesson Planning.
- 2) To know which points to be kept in mind while making Lesson Plan ?
- 3) To understand steps in Lesson Planning.

2.5.1 Introduction :

Lesson Planning means a plan of the lesson which is fundamental to the effective teaching. Careful planning of lessons is essential for teachers. For competent teaching the teacher should select and reorganise the material for a day's lesson so as to achieve the desired results.

Meaning of Lesson Planning :

Lesson plan is the core of the heart for effective teaching. In the words of **L.B. Sands**, "a lesson plan, is actually a plan of action. It, therefore, includes the working philosophy of the teacher, her knowledge of

philosophy, her information about and understanding of her pupils, her comprehension of life objectives of education, her knowledge of the material to taught and her ability to utilise effective methods." It is the teacher's mental and emotional visualization of the classroom experience as he/she plans it to occur. **N.L. Bossing** has given a comprehensive definition of lesson plan "Lesson plan is the title given to a statement of the achievements to be realised and specific meaning by which these are to be attained as a result of the activities engaged during the period."

Bining and Bining have explained the structure and purpose of lesson plan in their definition. "Daily lesson planning involves defining the objectives, selecting and arranging the subject-matter and determining the method and procedure." **Rybuth** considers that a pupil-teacher gains experience about his classroom work through lesson planning, so that he is able to perform his tasks successfully in his teaching. He has defined this concept in brief. "To teach we must use experience gained as starting point of our work."

2.5.2 Need of Lesson Planning :

1. Lesson plan helps the teacher to achieve the teaching objectives.
2. It helps in planning the process of teaching.
3. It develops the possibilities of adjustment in the classroom situations.
4. It helps in recalling every step of curriculum.

2.5.3 Importance of Lesson Plan :

Lesson planning is the base of competent teaching. It performs some specific functions :

- (i) **It motivates the Teacher :** It keeps the teacher on the track, ensures, steady progress and a definite outcome of teaching and learning procedures. It keeps the teaching systematic and orderly.
- (ii) **It helps the teacher in Managing Material :** During the planning of lesson, the teacher selects and organise the material in specific manner. Lesson planning correlates the various aspects of subject matter involved in the lesson.
- (iii) **Selection of teaching methods :** In the plan, teacher mentions the teaching method which might be suitable for the material to be taught and mental level of the pupils.
- (iv) **Save time and energy :** Lesson planning saves time and energy, as the teacher thinks and writes about each small bit of interaction before entering the class.

- (v) **Helps the Interaction to be Systematic :** It prevents haphazard teaching. It provides a framework to help the teacher in improving his teaching behaviour patterns.
- (vi) Enable the teacher to make the best planning of learning activities for his teaching.
- (vii) To maintain continuity in importing learning material to the students.
- (viii) To modify student's attitudes, habits, information and abilities in right and desired direction. As lesson planning provides opportunities to the teacher to think about subject matter.
- (ix) To enable the teacher to be resourceful, imaginative and tactful. As teacher has planned already about classroom interaction so he is confident and cheerful.
- (x) To ensure proper use of adequate audio visual aids in teaching. As the teacher plans the lesson he/she must have prehand information about the A.V. aids, So he/she can use them efficiently.
- (xi) To enable the teacher to become more competent in dealing with various difficulties and problems of the students that would arise in the class.
- (xii) **Develop Skills in the Teacher :** As the teacher writes in plan/ how many meaningful questions to be posed per unit time, how probing in questioning takes place, expected response of the pupils, chalk board work etc. interaction patterns. Introduction of the lesson, achieving closure of the lesson. Attending behaviour of the pupils, all these aspects develop certain required teaching skills, in the teacher.
- (xiii) **Modification of Teacher behaviour:** It helps the teacher in accepting and using ideas, feelings of the pupils as the teacher write down about expected response of the pupils. Through evaluation the teacher knows not only about his own teaching but also learning of his pupils. Lesson planning enable the teacher how to know the effectiveness of his teaching and desired teaching outcomes of the students through suitable tools and techniques of evaluation.

2.5.4 Principles of Lesson Plan :

The teacher has to plan the lesson. He must keep following principles in mind while planning his lesson.

1. The teacher must have a though knowledge of the lesson. The teacher cannot write good lesson plan if his knowledge of the subject is poor.

2. The teacher must be practical for selecting the methods and techniques mentioned in the lesson plan, so that lesson plan can become guide not a burden for the teacher.
3. Subject matter should be organised in psychological manner i.e. from known to unknown or easy to difficult. Subject material should be according to varied interests, needs, attitudes and mental level of pupils.
4. The teacher must ensure active participation of students through the good framing of subject material.
5. The teacher has to visualise and anticipate the classroom situation. The teacher should be imaginative enough to realise the difficulty which the pupils will face and the way these difficulties are to be removed. Teacher should approach the lesson plan imaginatively, resourcefully and wisely.
6. Suitable evaluation tools and techniques of evaluation should be included to determine the desired learning outcomes of the students and teaching competence of the teacher.

2.5.5 Aims of Lesson Planning :

The chief aims of lesson planning are :

- (1) Teaching becomes systematic as the teacher prepares himself in advance, what to teach and how to teach.
- (2) Teacher comes to know about the previous knowledge of the pupils.
- (3) Teacher can motivate his pupils through lesson planning. As he plans in advance how can he uses various teacher skills such as correlation of verbal and non-verbal teaching behaviour can reinforce the pupils.
- (4) Through lesson planning, the organization and presentation of teaching material can be effectively done.

2.5.6 Steps for Lesson Planning :

The lesson-planning is an ancient concept but still it has the important place in teacher education programmes in the teaching practices. Usually, following five steps are employed :

1. Preparation
2. Presentation
3. Comparison and Abstraction
4. Generalization

5. Application

1. Preparation :

This step involves the finding new and interesting ideas about presenting subject matter in classroom. In this step teacher plans presentation of content systematically.

2. Presentation :

The new ideas or knowledge of contents is imparted in such a way that it may be linked with earlier knowledge of the students. The presentation at this stage involves the following activities.

- Teacher should impart specific content.
- Teacher should have a definite work.
- Teacher should build a definite structure of teacher activities.

Thus, kind or presentation in teaching learning has three characteristics :

- (i) Definiteness
- (ii) Predictability
- (iii) Observable specified knowledge structure.

3. Comparison and Abstraction :

In this step, the teacher attempts to compare between new system, new facts and ideas and to identify similarities among new facts.

4. Generalization :

In this step, teacher generates the situations so that students can be able to identify similarities of element of new ideas and knowledge. The rhythm and recitation methods are used at this stage.

5. Application :

Teacher creates situations or problems so that student may use memorized facts fix. The further facts.

2.5.7 Outline of Lesson Plan :

For teaching any subject competently the teacher has to proceed in a systematic manner. In preparing a lesson plan following teaching points are followed.

1. Subject, Topic and Class :

A teacher selects a topic for the teaching from prescribed curriculum. He decides the date, period and level of his classes. This step also delimits his lesson plan.

2. Formulation of Educational Aims of General Objectives :

The teacher has to write the general objectives of his subjects considering the level of the students. Aims are general statements that make communication possible for long range purposes.

Following are some of the educational aims for teaching of social studies :

- (i) Arousing interest of the pupils for particular subject.
- (ii) Increasing creative abilities of the pupils.
- (iii) Preparing the pupils for future life by providing the knowledge of present and past events.
- (iv) Developing feelings of the nationalism and "internationalism in the pupils.
- (v) Providing the knowledge of Socio-Politico economic system of the country to the pupils.
- (vi) Improving classroom interaction patterns and developing required skills in the pupils.

3. Specific Objectives :

Objectives are more precise form of the general statements of the purpose. The objectives definite and specific, it means formulating particular objectives for a topic. These are different for different lessons.

4. Teaching Aids :

As "one vision is better than hundred time tellings". The teacher can provide teaching material in an interesting and simple form through the proper use of adequate aids. The lesson plan must show the different lessons.

5. Teaching Method :

There are various methods for teaching of any subject. Required method must be mentioned in the lesson plan. Teacher uses 'various devices such as questions, illustrations, descriptions, explanations and various audio-visual aids to make his lesson meaningful, interesting and appealing. The lesson plan should contain details of all these.

6. Previous Knowledge Testing :

As we have to proceed from known to unknown, testing the previous knowledge helps the teacher in judging the mental level and grasping power of the pupils. Sometimes, it comes true that "first impression is the last impression".

It means, if introduction of a lesson is good and the teacher provides it effectively. Pupils get motivated for whole lesson.

7. Announcement of the Topic :

After providing the introduction of the lesson the teacher announced the topic in an audible voice. The statement of the aim should be clear, brief and concise. There should be no ambiguity and vagueness.

8. Presentation :

Following points in mind may prove helpful in good presentation of the lesson :

- (i) Divide each lesson into units and sections;
- (ii) Meaningful questions should be posed for increasing pupil discussion response.
- (iii) Material for chalk board should be mentioned in the plan stepwise. It can include points, sub-points, sketches, outline diagrams, maps graphs, pictures, time lines and directions.
- (iv) Methods and techniques for every small part of the lesson should be clearly mentioned.
- (v) Proper co-ordination must be there among the different parts of the lesson.

9. Chalk board Summary :

The teacher has to prepare the chalk board summary of his teaching points and explanations.

10. Recapitulation :

Questions from the different parts of the lesson should be asked at a suitable rate or speed'. It helps the pupils to reach at some conclusion with reference to the wider significance of the problems. An attempt is made to ask pupils to recall recognize and reproduce what they have learnt. The pupils how to express themselves and how to reproduce the material learnt.

11. Home Work :

For the consolidation of knowledge assignment is necessary. Let the pupils draw the maps, collect the statement write out answers for questions etc.

2.5.8 Suggested Questions

- (1) Define meaning and importance of Lesson Plan ?
- (2) Which points to be kept in mind while making Lesson Plan ?
- (3) Explain steps of Lesson Planning in detail.

2.5.9 Suggested Books

1. Wesley E.B., : Teaching of Social Studies in Elementary Schools.
2. Kochhar. S.K. : The Teaching of Social Studies.
3. Aggarwal J.C. : Teaching of Social Studies.
4. Sandhu P.K. (2003) : Teaching of Social Studies.
5. Manjeet Kaur, : Teaching of Social Studies (Eng)
Gurmeet Singh (2004)

EVALUATION : MEANING, IMPORTANCE AND TYPES

Structure :

- 2.6.0 Objectives
- 2.6.1 Introduction
- 2.6.2 Meaning of Evaluation
- 2.6.3 Need and Purpose of Evaluation
- 2.6.4 Importance of Evaluation
- 2.6.5 Types of Evaluation
- 2.6.6 Continous and Comprehesive Evaluation
- 2.6.7 Conclusion
- 2.6.8 Self Evaluation
- 2.6.9 Reference

2.6.0 Objectives :

After Reading this chapter the students will be able :

- 1) To know about the meaning of Evaluation?
- 2) To know the need and importance of Evaluation.
- 3) To discuss the types of Evaluation.
- 4) To discribe the Continous and Comprehensive Evaluation.

2.6.1 Introduction :

For achieving aims of teaching of any subject, different methods, techniques, teachings, aids and text books are used. Are these proved to be useful for learning ? It can be judged through evaluation.

Evaluation not only concerned with the determination of learning results but it also involves value judgement of the desirability of these results. It is continuous process in which various techniques of testing or measurement can be utilised. "Evaluation is a co-operative activity in which the principal, teachers, the pupil and the parents participate."

To evaluate means to characterise the work or value of something. It is a checking or assessment of what goes on, so that actual facts of a

situation may be ascertained and remedial action taken where necessary. It is a process of making an overlay of the outcomes as an educative experience against the background of anticipated or stated objectives.

Different educationists define the term evaluation as follows :

According to **Clora M Brown**, "Evaluation is essential in the never-ending cycle of formulating goals, measuring progress towards them and determining the new goals which emerge as a result of new learning. Evaluation involves measurement which means objective quantitative evidence but is broader than measurement and implies that considerations have been given to the particular situation." **H.H. Remmers & N.I. Gage** point out. "It is the felt need that has caused the shift from the term 'measurement' implying mathematically precise 'measurement of knowledge to the term 'evaluation' 'which winds the areas to be studied to include subjectives, opinions and qualitative changes as well as objective and quantitative changes to include change on attitudes, appreciations, understanding as well as acquisitions of knowledge and skills".

John V Michaelis: Evaluation is the process of determining the extent to which objectives have been achieved. It includes all the procedures used by the teacher, children, principal and other school personnel to appraise outcomes of instruction. Evaluation is process by means of which changes in behaviour of pupils are studied and guided towards goals sought by a school.

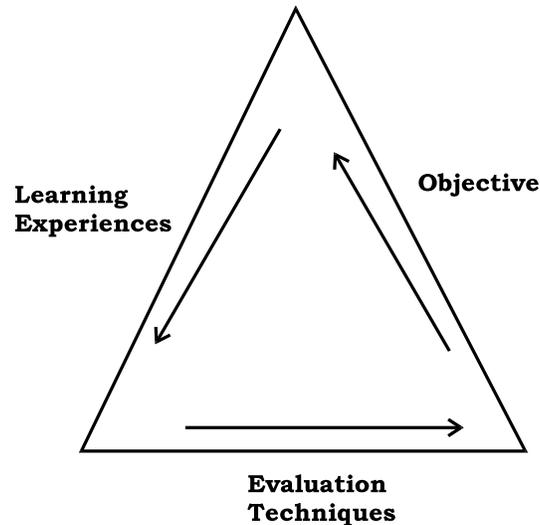
Wiles defines evaluation as, "Evaluation is a process of making judgements that are to be evidenced and revising procedures and goals in the light of the judgements. It is a procedure for improving the product, the process and even the goals themselves."

Thomas, H. Brigs and Joseph writes the "Evaluation is process by which the values of the enterprise are ascertained. **Shave and McSwan** conceive evaluation, as a process of inquiry based upon criteria co-operatively prepared and concerned, with the study interpretation and guidance of socially desirable changes in the developmental behaviour of children. It is a process within the child as a result of which he responds to the psychological interpretations he makes of his school-Community environment."

Evaluation is the process of determining the extent to which an objective is being achieved. Evaluation rests upon three pillars :

- (i) Educational objectives

- (ii) Learning experiences and behavioural changes.
- (iii) Tools and techniques of evaluation. It can be shown as follows :



Objectives are central to both learning experiences and evaluation. Evaluation comes in at the planning stage when objectives are determined so it is a continuous process, related to the total learning situation.

2.6.3 Need and Purposes of Evaluation

As it is qualitative term so it serves following purpose :

- (i) Evaluation discloses pupil's needs and possibilities.
- (ii) Evaluation appraises the status and changes in pupil behaviour.
- (iii) Evaluation expands the concept of worthwhile goals beyond pure achievement.
- (iv) Evaluation aids pupil-teacher planning.
- (v) Evaluation serves as a means of improving school community relation. Evaluation familiarizes teacher with the nature of pupil learning, development, and progress.
- (vi) Evaluation relates measurement to the goals of the instructional programme.
- (vii) Evaluation facilitates the selection and improvement of measuring instrument.

- (viii) Evaluation appraises the teacher's competence.
- (ix) Evaluation appraises the supervisor's competence.

2.6.4 Importance of Evaluation

The chief aim of education is "an all-round development of the person", can be achieved only through evaluation.

(i) Evaluation leads to improvements of instruction : As evaluation relates measurement to the instructional programme, the drawback in the programme, find out at an earlier stage and removed to improve the instructional material.

(ii) Evaluation helps the learners of different categories : Some students satisfied in same class whereas others not. Money techniques of evaluation as oral test, for judgements of skills in general as well as unspecific areas helps the learners.

(iii) It provides basis for guidance : Through evaluation, the teacher comes to know about strong points and weak points of different pupils tells us the achievement of a particular pupil may be good in one field and poor in another field so the reason of poor performance can find out and removed to achieve actual performance of the pupil.

(iv) It judges the progress of the pupils in the field of education : The general aims of education is all-round development of pupils. This aim can be attained only through evaluation means qualities improvement. Evaluation based on objectives held the subject teacher in clarifying his ideas about the objectives of teaching. It also enables him to select worthwhile and realistic objectives and to adopt such methods of teaching that would best achieve the objectives. It also appraises the teacher's competence.

(v) Evaluation is essential for sound education.

(vi) Evaluation techniques are essential for an adequate teaching learning situation. A sound choice of objectives depends upon sound information is obtained through the techniques of evaluation.

(vii) Evaluation attempts at relating the subject-matter content, classroom instruction (teacher learning process) and testing procedure to educational objectives and it helps in developing a scientific approach to education problems.

2.6.5 Types of Evaluation :

Evaluation is of many kinds. A planning evaluation is performed prior to

development of the given programme. A formative evaluation takes place during the actual development of an exhibit. A summative evaluation is the most common & format type of evaluation is carried out at the end of the programme.

Apart from this oral, written and practical type of evaluation is there. Written evaluation further involves following kinds :

- (1) Essay Types Tests (2) Short Answer Type Tests
- (3) Objective Type Tests

(1) Essay Type Tests :

In these tests, pupil's written expressions is judged. Attempt is made to test the student's abilities to interpret data organise and summarise ideas, apply principles, describe events, persons and place, think creatively and critically. The essay test refers to any written test that requires an examinee to write a sentence, a paragraph or longer passages and that demands a subjective judgement about its quality and completeness when it is scored e.g.

- (i) Describe factors responsible for poverty in India.
- (ii) Write in detail about population explosion.
- (iii) How can we improve the feeling of nationalism and internationalism among our pupils ?

Merits of Essay Type Test :

- (i) As these contain less number of questions so it is easy to construct.
- (ii) It is the only means that can assess an examinee's ability to organise and present his ideas in a logical and coherent fashion and in effective prose.
- (iii) Logical thinking and critical reasoning, systematic presentation etc. can be best development by this type of test.
- (iv) It helps in inducing good study habits such as making outlines and summaries, organising the arguments for and against etc.
- (v) The students can show their initiative, the originality of their thought and the fertility of their imagination as they are permitted freedom of response.
- (vi) The response of the students need not be completely right or completely wrong. All degrees of comprehensiveness and accuracy are possible.
- (vii) It largely eliminates guessing.

Disadvantages or the Essay Test :

These tests also possess some demerits :

- (i) These are subjective as different examiners assign different marks for the same answer.
- (ii) They could not cover the whole syllabus as the number of questions is less.
- (iii) Many students have handicap of bad handwriting or spelling mistakes due to carelessness, they lose marks for these examiners could not check their expression due to these handicaps.
- (iv) They encourage cramming rather than independent thinking in some cases. They possess both merits & demerits but if they are administered according to age, interest & mental level of the pupils. They can serve the purpose to some extent.

ii) Short Answer Type Test :

In this type, questions are set to which answers have to be given which may vary from some words to fifty words. The main purpose is to test a large amount of knowledge, abilities and understanding within a short time e.g. :

- (i) Explain two main factors which hinder the promotion of national international among the students.
- (ii) Give short note on differences between primitive agriculture and modern agriculture.

(a) Merits :

These tests have some advantages more than others i.e.

- (i) They are comprehensive as compared to essay type test because they cover the syllabus to a large extent (due to their large number).
- (ii) They keep the students on the track as student could not write vague statements to increase the length of the answer.
- (iii) It provides little opportunity for guessing as the student is required to supply information.
- (iv) It helps the students how to organise the information in a few words.

(b) Demerits

- (i) Time consuming as large number required much time to construct it.
- (ii) They do not evaluate the pupil's appreciations, interests and ideals.

- (iii) The students are not in a position to develop their expression powerfully in short answer type test.

(iii) Objective Type Test :

It refers to any written test that requires the examinee to select the correct answer from among one or more the alternatives or supply a word or two and that demands an objective judgement when it is scared. Objective type tests require the students to develop creative original thought for the basis for choice among the alternatives. Good objective type tests do not permit correct response merely on the basis of simple recognition.

Types of Objective Type Test :

The types of objective test are as follows :

True False :

In this type, there are test terms that measure the ability to identify the correctness of statements of facts and definitions of terms.

(Tick (Ö) in the blanks against statements.)

- (i) Saving = Income - Consumption.
- (ii) War of Placy was held in 1957
- (iii) Maharaja Ranjit Singh was a Mughal Emperor.

Merits :

The scoring of test is easier than the other tests. Construction is easier and consuming less time.

Demerits :

Difficult to construct and has 50-50 chance of guessing.

The Competition Test :

Sentences are left incomplete and students are asked to complete the sentences e.g.

- (i) The population of India in 1991 was.....
- (ii) is the currency of U.S.A.
- (iii) The Holy Bodh tree is situated at.....

Merits :

Develops factual knowledge of the students, helps the pupils to learn important words & phrases.

Demerits :

Includes the possibilities of rote memory and does not develop understanding.

3. Multiple Choice Test :

It consists of a problem or an incomplete statement and a list of suggested solutions. Students are made to choose one right word out of the suggested lot.

A. The Japanese people use silk freely in their dress because :

- (a) They grow mulberry trees in plenty.
- (b) They are religious minded.
- (c) They can import silk at low cost from China.
- (d) There are many silk factories and mills in Japan.

B. During whose reign Fahien visited India ?

- (i) Harsha Vardhana
- (ii) Ashoka
- (iii) Chandragupta

Matching Test

It consists of two parallel columns with each word, number or symbol in one column being matching to a word, sentence in other column. The students have to identify the pairs of items of that are to be associated.

Under column A names of some religions and under column B names of their founders are given, write down the correct names under column C.

A	B
Islam	Mohammad
Jainism	Buddha
Budhism	Christ
Christianity	Mahavira

Simple Recall Type Test :

In this test, the student is required to supply missing items of information, usually words, numbers to complete statements.

Write in one word the answer of the following :

- (a) What is the literacy rate in India ?
- (b) What is the per capita income in India ?

Merits of Objective Type Test :

- (i) It can be scored objectively and easily. The scoring will not vary from time to time or from examiner to examiner.
- (ii) It possess economy of time for it takes less time to answer than an essay test. It also saves a lot of time of the scorer.
- (iii) They have greater reliability and better content validity.
- (iv) It eliminates extraneous factors such as speed of writing, fluency of expression, good handwriting etc.
- (v) It creates an incentive for pupils to build up a base of knowledge, skills and abilities.
- (vi) It measures the higher mental processes like understanding, application, analysis prediction and interpretation.

Limitations :

- (i) Guessing is possible. The construction of adequate objective type test items is difficult.
- (ii) Objectives like ability to organise matter, ability to present matter logically and in a coherent fashion etc. can not be evaluated.

2.6.6 Continuous and Comprehensive Education :

Continuous and Comprehensive Evaluation was introduced by Ministry of Human Resource Development, Kapil Sibal to decrease the accumulated stress of board exams on the students and to introduce a more uniform and comprehensive pattern in education for the children all over the nation. It helps in improving student's performance by identifying his/her learning difficulties at regular time intervals right from the beginning of the academic session and employing suitable remedial measures for enhancing their learning performance. Continuous and Comprehensive Evaluation refers to a system of school based assessment that covers all aspects of student's development. Now according to Right of Education act Continuous Comprehensive Evaluation become mandatory at primary level of education. Continuous Comprehensive Evaluation technique is useful to identify difficulties and weakness in learning of students. It is also useful for all round development of the student. But it is necessary to use variety of evaluation tools and technique. Evaluation is a process by which we can collect evidences for student progress. By analyzing collected measures for better learning of student. In short, it involves systematic collection, analysis

and interpretation of learner' progress both in scholastic and co-scholastic areas of learning to provide constant feedback about the effectiveness of course content, classroom processes and the growth in individual learner. Continuous Comprehensive Evaluation means a method adopted to evaluate various aspects of development of students personality from various dimensions. It is comprehensive because the evaluation is exhaustive and is done on many levels and sine the evaluation is al year round, it is continuous. Continuous Comprehensive Evaluation is divided in to 3 parallel parts :

Part-1 : This part deals with performance in academic subjects like Science, Math and English instead of marks, grades are given based on the performance all through the year. The academic year is divided into two sessions, in each session; there are Formative and Summative Assessments. The school has liberty in deciding the number of Formative assessments and their percentage by weight, but at the end of the evaluation, the students get a grade for each subject in stead of marks.

Part-2 : This part deals with Co-scholastic areas such as life Skills, Attitude and Value. For each of the co-scholastic skills, teachers are again required to give a Grade and a descriptive indicator. Schools can expand these; for example, life skills can include thinking skills, Social Skills and Emotional Skills. Attitude can be judged towards teachers, peers and environment. This part of the CCE aims to tell the students and parents that it is not just the education that is important for an overall development of a child during the schooling years.

Part-3 : This part deals again with Co-scholastic activities. The idea behind this part is to give simple grade based on activities performed/participated in during the year. This part is divided in two section a literary/Creative/Scientific/Aesthetic Skills, Performing Art, Clubs etc. Health and Physical Education. Teachers are expected to grade students on their involvement with these activities during the year. Students can sticks with areas like literary skills like debates and declamations or even showcase their talents in more creative fields like art, craft and drama. This way, this part again promotes development of a child in areas other than academics.

In the CCE grading system there will be dual formative assessment and single summative assessment for assessment of scholastic areas. In the formative

assessment students will be given regular feedback and motivate them to actively involve themselves in self learning. This will help to increase the students performance level and confidence level. The formative Assessment is not constrained only to the pencil paper tests. It also has various quizzes, oral testing, projects, assignments etc. The Summative assessment in the CCE is a way of assessment of student's performance at the end of the teaching. The evaluation is of pen-paper test and is carried out by the schools themselves. This will be held at the end of each term. There will be an evaluation of Co-Scholastic areas like students achievement, Attitudes, Creative and scientific skills, health and physical education and many more.

2.6.6.1 Features of Continuous and Comprehensive Evaluation

- * The continuous aspect of CCE takes care of continual and periodicity aspect of evaluation.
- * Continuous means assessment of students in the beginning of instructions (placement evaluation) and assessment during the instructional process (formative evaluation) done informally using multiple techniques of evaluation.
- * Periodicity means assessment of performance done frequently at the end of unit/term (summative).
- * The comprehensive component of CCE takes care of assessment of all round development of the child's personality. It includes assessment in Scholastic as well as Co-Scholastic aspects of the pupil's growth.

2.6.6.2 Objectives of the Scheme

- * To develop cognitive, psychomotor and affective skills.
- * To lay emphasis on thought process and deemphasize memorization.
- * To make evaluation an integral part of teaching-learning process.
- * To use evaluation for improvement of students' achievement and teaching learning strategies on the basis of regular diagnosis followed by remedial instruction.
- * To use evaluation as a quality control devise to maintain desired standard of performance.

2.6.6.3 Functions of Continuous and Comprehensive Evaluation

- * It helps the teacher to organize effective teaching strategies.
- * Continuous and comprehensive evaluation helps in regular assessment to the extent and degree of learner's progress.
- * Continuous and comprehensive evaluation serves to diagnose weaknesses and permits the teacher to ascertain in individual learners strengths and weaknesses and her needs. It provides immediate feedback to the teacher, who can then decide whether a particular unit class or whether a few individuals are in need of remedial instruction.
- * By continuous evaluation, children can know their strengths and weaknesses. It provides the child a realistic self assessment of how he/she studies. It can motivate children to develop good study habits, to correct errors, and to direct their activities towards the achievement of desired goals. It helps a learner to determine the areas of instruction in which more emphasis is required.

2.6.6.4 Need of Continuous and Comprehensive Evaluation

Continuous and Comprehensive Evaluation is a boost to students. It helps in reducing stress of students by :

- * Identifying learning, progress of students at regular time intervals on small portions of content.
- * Employing a variety of remedial measures of teaching based on learning needs and potential of different students.
- * Avoid using negative comments on the learner's performance.
- * Encouraging learning through employment of a variety of teaching aids and techniques.

2.6.6.5 Advantages of Continuous and Comprehensive Evaluation

- * There is no pressure for students to become highly academic because they aim to encourage individuals to choose interest based activities while retaining the importance of academia. They aim to make the students feel more related so they improve their academic ability without feeling under pressure.

- * The CCE system also focuses on holistic education which aims to develop various aspects of a student's personality which ultimately helps them identify what they are better at and stronger at in terms of academics.
- * CCE helps in dropping stress of students in different ways like, evaluating leaning advancement of students at expected time gaps on small portions of contents.
- * Encourage learning through employing different teaching aids and techniques and involving captive activities in the learning process.

2.6.6.6 Obstacles in Continuous and Comprehensive Evaluation

- * Lack of necessary knowledge and skill to implement continuous and comprehensive evaluation.
- * Inadequacy of infrastructure and time.
- * Difficult to prepare and maintain records.
- * Lack of provisions for curriculum for continuous comprehensive evaluation.
- * Student attendance and availability of resources.

2.6.7 Conclusion

According to Vivekananda, "Education is the manifestation of divine perfection already existing in man". Evaluation methods when practiced will lead to this. Continuous and comprehensive evaluation facilitates students' effective learning as well as their all round development of personality with its multiple evaluation tools and techniques and corrective measures. By using particular evaluation technique, the teacher can turn ordinary students into active learners. By facilitating all round development of students, providing all the students the same opportunity to display their individual potential, helping the teacher to realize the effectiveness of teaching learning process, continuous of teaching technique proves itself as a boost to student. Thus it is upmost important to make effective evaluation as an integral part of teaching and learning process to promote standards of school education.

2.6.8 Self Evaluation

- (1) What is need of Evaluation ?
- (2) Define the term Evaluation ? Write in brief various methods of Evaluation.

- (3) Write the advantages and disadvantages of continuous and comprehensive Evaluation.

2.6.9 References

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