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TIRUCHIRAPPALLI – 620 024

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TEACHING OF COMMERCE

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The Syllabus adopted from 2024-25 onwards

SYLLABI-BOOK MAPPING TABLE
Teaching of Commerce

	Syllabus Mapping in Book	Page No.
	Block-I: Commerce, Nature, Scope and Associated Subjects	
Unit – I	Commerce and Associated Subjects	
Unit – II	Planning	
	Block-II: Planning and Aquiring Skills in Teaching Commerce	
Unit - III	Acquiring Teaching Skills and Professional Development	
	Block-III : Commerce Curriculum and Instructional Methods	
Unit- IV	Commerce Curriculum	
Unit-V	Instructional Methods	
	Block – IV: Educational Technology, Commerce Department and Community Resources	
Unit-VI	Educational Technology	
Unit-VII	Commerce Department and Community Resources	

Unit – I	COMMERCE AND ITS ASSOCIATED SUBJECTS

Structure

- Introduction
- Learning Objectives
- Commerce: Its meaning and definition
- Meaning of the term Commerce
- Definition of the term Commerce
- Commerce Education: Meaning, definition and Importance
- Meaning of Commerce Education
- Definition of Commerce Education
- Importance of Commerce Education
- Commerce Education: fulfilling the present day needs
- Nature and Scope of Commerce and Accountancy
- Nature of Commerce and Accountancy
- Scope of Commerce and Accountancy
- Correlation of Commerce and Accountancy with other subjects
- Correlation of Commerce and Accountancy with reference to Economics
- Correlation of Commerce and Accountancy with reference to Mathematics
- Correlation of Commerce and Accountancy with reference to Geography
- Correlation of Commerce with Business Management
- Values of teaching Commerce and Accountancy
- Practical or Utilitarian value
- Social value
- Cultural value
- Moral value
- Disciplinary value
- Vocational value
- Recent developments in commerce
- Summary
- Key Terms
- Answers to 'Check Your Progress'
- Unit end Exercises
- Learning Outcomes
- Suggested Reading

INTRODUCTION

The explosion of 'information' in science and technology has influenced every area of life, including business and commerce. The increasing complexity of business and commerce organizations in the present day world would make it obligatory for students to be conversant with modern principles and practices of management and accounting. Gone are the days when, one could depend on the 'Munims' and their 'Bahi Khatas'. The use of computers and the management techniques' of the behavioural sciences have completely revolutionized the running of modern 'business and commercial enterprises.

This is the first unit of this course. In this unit we shall discuss the introduction, meaning and definitions of commerce, nature and scope of commerce subject and recent developments in commerce. We shall also discuss, commerce education: its meaning and importance, historical developments of commerce education and the need for commerce and accountancy education. We will also study the importance of commerce education for fulfilling the present day needs. From these you can understand the place of commerce in global world and the importance of commerce education in the present day teacher curriculum.

LEARNING OBJECTIVES

After going through this unit, you will be able to:

- define the term commerce;
- knows the nature and scope of commerce subject;
- describe the recent developments in commerce;
- define the commerce education;
- knows the need and importance of commerce education;
- Status of commerce education in present day needs.
- State the importance of correlation of commerce and accountancy with other subjects,
- Identify the relationship between commerce and economics,
- State the relationship between commerce and mathematics, commercial geography and other allied subjects,
- Study various values of teaching commerce and accountancy

COMMERCE: ITS MEANING AND DEFINITION

It is not very long, since commerce has developed to a unique discipline with a firm standing of its own. Instead of being considered as one of the various dimensions of Economics, it has now emerged as a subject of study having its

own features resulting in enormous scope and applications. It has also a variety of social functions to serve. The commerce teacher can transmit the spirit and trends of this 'science' with a social orientation and can develop the related understandings, attitudes, values, skills, etc. among the students only if he internalizes all these aspects by himself. As such, an attempt is made in the discussion that follows, to clarify the meaning, nature and characteristics of commerce, as well as its scope and functions emerging out of these characteristics.

MEANING OF THE TERM COMMERCE

The term 'commerce' as it is understood in modern times, conveys a specific meaning. The meaning of the term 'commerce' represents that particular domain of knowledge which deals with the concepts, principles, theories, processes and skill that could be applied in the proper conduct of all tasks and transactions related to commercial activities. This is followed by the planning for convenient but cheap means of storing the goods, adopting scientific procedures for their trade and making provisions for effective distribution and customer services. It would also involve issues of financial provision, financial stability, insurance against various hazards, etc.

DEFINITION OF THE TERM COMMERCE

According to James Stephenson, "commerce is concerned with exchange of goods, with all that is involved with the buying and selling of goods, at any stage in their progress from raw materials to finished goods in the consumer's hands. It covers not only functions of buying, selling and handling of goods, but also the many services which must be provided to finance, insurance, store and transfer of goods in the course of this exchange."

According to Dr.Evelyn Thomas, "commerce is a term that embraces all those functions involved in the making, buying, selling and transport of goods."

Check your Progress

Notes : a) Give your answer as instructed in each question.

      b) Compare your answer with those at the end of the unit.

    1.   Bring out the definition of commerce by James Stephenson.

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COMMERCE EDUCATION: MEANING, DEFINITION AND IMPORTANCE

Any teacher who is expected to transact the curriculum of a subject to his students has first to develop a thorough understanding and meaningful insights regarding all aspects concerning that subject. A subject is accepted as a unique discipline for study because it conveys specific meanings and also possesses important characteristics which in turn lead to worthwhile functions to be served for the benefit of the society. The subject can be dealt with, in such a way as to fulfill the demands posed by the nature, scope and importance of the discipline, only if the teacher understands and appreciates these. This is very true of Commerce also.

Meaning of Commerce Education

Commerce education is directly concerned with the day to day life of the students. Even then it is necessary to define commerce education. According to Herrick, "commerce education is that form of instruction that both directly and indirectly prepares the businessman for his calling". In Herrick's view commerce education is preparation of a businessman. It includes all types of education which makes one person to become a great businessman.

Definition of Commerce Education

In 1922 Lyon stated commerce education as "Any education which a businessman has and which makes him a better businessman is for him a commerce, no matter whether it was obtained in the walls of a school or not". According to Lyon curriculum for commerce education is all the activities of businessman and the ways by which he became a great businessman. To him that education is not restricted to the schools only since the student can even get his education outside the school i.e., from the society.

In 1933 Nichols defined commerce education as follows, 'commerce education is a type of training which while playing a part in the achievement of the general aims of education on any given level, has for its primary objective the preparation of people to enter upon a business career or having entered upon such a career to render more efficient services there in and to advance from their present levels of employment to higher levels".

In 1950 Shields defined that real business education is economic education, Economic education not of the academic sort long on theory and short on facts, but economic education which will give the students a knowledge of the basic realities of business life and relationship. The basic realities of business of

economic and without a thorough grounding awareness of economic problems much of the material included in secondary school business courses is purely additive and essentially superficial…..We cannot place technique and socio-business subjects on a dual headed definition of the field but must recognize that certain elements must be most emphasized and these I take to be the economic factors". According to Shields commerce-education is based upon the economic education. The main frame work of the syllabi in commerce education is provided by economics.

Importance of Commerce Education

The main purpose of commerce education is to provide knowledge about the commerce and to prepare the student for vocational competency including training and development of skill. Commerce education is useful for the students to understand the various aspects of changing of the ownership of goods and to know about the various aids which facilitate the central process of exchange. Commerce education is aimed at giving adequate knowledge about the wholesale trade, retail, export trade, import trade and entire-port trade. More-over it provides some knowledge about the movement of goods etc., Transport, Communication Insurance, Ware-housing, Money, Banking & Finance and Mercantile Agencies.

The main purpose of teaching Accountancy is to make the students understand the importance of book keeping its need and accuracy, neatness, orderliness, responsibility, honesty etc. This helps the students to know how to prepare and interprets simple financial statements and reports. It aids the students can understanding the posting of business transactions in the various forms of Accounts books such as journal, ledger, and other subsidiaries books etc. The commerce education helps the students to draw conclusion about the financial position of the organizations.

Many technical, industrial, and scientific developments are taking place. As these developments goes on the demand for efficient office workers will increase rapidly. More and more employment opportunities will be available at the executive and supervisory level as well as at the lower level Commerce education provides proper training for executives and supervisory and lower level workers. The college programmes of commerce education will provide education for lower level such as typist, stenographers, book-keepers, file clerks, cashier etc. Division of labour and specialization leads every country not to be a self sufficient one. Therefore many commercial transactions arte carried out between one country and another. So the Foreign trade becomes inevitable, under such circumstances the importance of Foreign trade for the development of every

country is imminent. In order to carry on the foreign trade effectively commerce education is an essential one. Commerce education provides knowledge about foreign trade, foreign exchange etc. It provides efficient supervisory personnel and the other able hands at lower level to assist the top executives. It also plays a vital role in the modern economic development. Thus it is very important at the higher secondary level.

Fulfilling the present day needs

Commerce is a dynamic process that brings together technology, natural resources and human initiatives in a constantly changing global environment. Hence, commerce education has undergone a tremendous change in the wake of Liberalisation, Privatisation and Globalisation. Computerized systems are fast replacing other systems.

E-commerce and other related concepts, therefore, have been introduced as part of the higher secondary curriculum. It helps students to appreciate that commerce is an integral component of society and also to develop an understanding of many social and ethical issues.

With the fast changing economic scenario and business environment the commercial world is in a state of continuous flux. In tune with circumstance, commerce education has carved out a place for itself at the higher secondary and higher education stage. Its curriculum content should give students firm foundations in basic accounting principles and business studies to keep them abreast with the changes in its methodology concerning particular aspects of the subject. This would help to develop among students traits such as logical reasoning, careful analysis.

Check your Progress

Notes : a) Give your answer as instructed in each question.

       b) Compare your answer with those at the end of the unit.

2.   Specify the importance of Commerce and Accountancy Education.

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3. State the significance of commerce education for fulfilling present day needs

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NEED AND IMPORTANCE OF COMMERCE AND ACCOUNTANCY EDUCATION

The main purpose of commerce education is to provide knowledge about the commerce and to prepare the student for vocational competency including training and development of skill. Commerce education is useful for the students to understand the various aspects of changing of the ownership of goods and to know about the various aids which facilitate the central process of exchange. Commerce education is aimed at giving adequate knowledge about the wholesale trade, retail, export trade, import trade and entire-port trade. More-over it provides some knowledge about the movement of goods etc., Transport, Communication Insurance, Ware-housing, Money, Banking & Finance and Mercantile Agencies.

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CORRELATION OF COMMERCE AND ACCOUNTANCY WITH OTHER SUBJECTS

The close linkage and correlation of commerce with a number of subjects have been highlighted here. It has been pointed out there that the scope of Commerce is very vast and it includes all aspects of modern life. It involves a study of many related disciplines apart from its own specialized branches. At the same time the correlation of commerce with three subjects namely Economics. Geography and Mathematics are specially significant,. Hence these are discussed below

Correlation of Commerce and Accountancy with reference to Economics Economics is divided into four parts namely, Production, Exchange, Distribution, and Consumption. Of this sub-division of economics, commerce is connecting with the whole of exchange and a part of production. Commerce includes all those activities that take place in the flow of goods between producers and consumers. In Economics this aspect is known as "exchange the exchange parts of Economics is exclusively the contribution of Commerce. Many specialized subdivisions of Commerce provide us with the theoretical basis and practical suggestions helpful to facilitate Subdivisions of Commerce provide us with the theoretical basis and practical suggestions helpful to facilitate the exchange of goods and services. These ideas are profusely used by economists to make exchange a scientific endeavor.

The goods produced should reach the hands of consumers to satisfy their wants for this their possession and ownership must be transferred from the producers to the consumers. The commercial activities involved in this transfer include the activities of various middlemen involved in the exchange. These commercial activities complete the full cycle of economic activities. In short, we can say that Economics is the mother of commerce. As such studies in commerce have to make use of ideas from economics. In turn, the modern development in commerce helps to enrich the theory and practice of economics, thus they supplement and complement each other.

Check your Progress

Notes : a) Give your answer as instructed in each question.

      b) Compare your answer with those at the end of the unit.

4.   "Economics is the mother of commerce' - Discuss.

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Correlation of Commerce and Accountancy with reference to Mathematics

Commerce means all the activities that take place in the exchange of goods from the producer to the consumer. A business concern keenly observes these activities and records them in the books of accounts. A skilful accountant prepares accounts in such a way as to show up all the deficiencies and strong points of the firm concerned. An accountant applies the fundamental arithmetical processes in preparing the accounts. Further in the field of sale tax, income tax, etc. Knowledge of mathematics is essential. Statistical techniques are profusely used for interpretation of data and for making predictions. All these make the relation between commerce and mathematics evident.

Correlation of Commerce and Accountancy with reference to Geography Geography studies about the earth. And it's climate, land scope, etc. The producers are producing agricultural goods and mineral products in tune with the climatic conditions of the region they inhabit. It is not possible to produce all the commodities necessary for human living at the same place. The raw materials required for any commercially significant commodity have to be collected from various places and made available in the centre of production. The availability of such materials is always based upon the geographical conditions.

For example, a flood or a drought can fail even the functioning of a commercial endeavor. From these aspects it is clear that, there is very close relationship between commerce and geography.

Correlation of Commerce with Business Management

The word management when used as a collective noun, refers to all those who manage activities within an organization. Management brings together all the factors of productions related to the endeavor and acts as a coordinating work force. In the words of john F. Mee, "Management may be defined as the art of securing maximum results within a minimum of effort, so as to secure maximum prosperity and happiness for both employer and employee and give the public the best possible service". Industry produces goods, which are meant of consumers. This means that consumer must beneficially enjoy the fruits of production. All activities ensuring the free flow of goods from the producer to the consumer are considered as elements of commerce. These include transportation, insurance, and advertising banning warehousing. Etc. Each of these elements demands effective management. The future of any business that involves production and sale of goods and services depends on efficient management. So it may be said that there is an inseparable relation between commerce and management.

VALUES OF TEACHING COMMERCE AND ACCOUNTANCY

Aims are considered as conscious purpose and foals. Values are the outcomes or results archived after teaching according to these aims. Aims are ideals which are not based on experiments. Values on the other hand spring as a result of experimentation or after putting aims into practices. Values are based on reality and the aims on philosophical consideration. Values of the study of commerce may be divided into the following categories

Practical or Utilitarian value

Commerce education has great significance in preparing individuals and the society in general for taking up and indulging in commercial activities efficiently. This is the period of globally relevant industrial activities and subsequent commercial activities involving various aspects of trade. The economic stability of any nation depends upon how scientifically and systematically these are organized. Commerce education provides us with the understandings, insights, attitudes and skills for taking up such activities, also, it gives proper guidance for systematically extending customer services, thus meeting the everyday requirements of peoples in terms of various commodities essentially required for the very sustenance of life. This may be considered as the practical value of commerce education.

Social value

The study of Commerce should enable an individual to appreciate that man is a social being and he must play an important role in bringing about social progress. Bad business dealings corrupt methods, smuggling and tax evasions are examples of anti social values which should be avoided as outcomes of a study of commerce. Profit movie should not be the end and be all of all business

enterprises. Comfortable life in a society depends upon how efficiently and fairly the dealings associated with commercial transactions like trade, distribution, services, etc. related to goods take place in the society. Performing all these dealings with a social commitment depends upon how well the members of the society get educated in these. Commerce education meets this social value also.

Cultural value

Culture is evidenced by correct socially desirable ways of thinking and doing. It is closely related with value-orientations. Commerce is an important aspect of the life of a nation. It explains the nature of the society in its special aspect of business and material prosperity. Commerce attempts to relate production with consumption. Fair dealings, good salesmanship, honesty in business and pleasing manners all go to make up the good cultural tracts of the individual in the commercial field. Several philanthropists in India from the business community have set up a large number of cultural and educational institutions in the country.

Moral value

Commerce is a valuable discipline for each country's development. It can help in solving various economic problems as unemployment, overproduction, and unequal distribution of wealth, ineffective economic policies, low living standard, poverty and many other social evils. There is no aspect of human life, where the knowledge of commerce is not useful. Whether there may be statemen, householders, businessmen, producers, labourers and manufacturers, they can't make progress without the knowledge of commerce education. Thus looked at from every point of view, it is an extremely useful and important subject.

Disciplinary value

The word 'discipline' has a special connotation in commerce. It is not in terms of 'order' and 'authority'. It is to be interpreted in terms of intellectual traits only a study of Commerce helps to develop the powers of knowing understanding and application. It also develops certain skill how to write good business letter etc. modern commercial theory and practice applies scientific methods for analyzing various components, planning various tasks, gathering a variety of data, systematically processing and interpreting them, etc. Commerce education reflects all these characteristics of scientific thinking and hence helps the learners of the science to acquire systematic ways of thinking and doing. This is the disciplinary value of commerce education.

Vocational value

The teaching of book keeping and accounting may satisfy the vocational aspiration of students because of the skill development nature. An understanding of book keeping principles together with accompanied skill may help students to become useful workers in business houses and industrial office. The educational objective of teaching commerce and accountancy are mainly determined by the competencies. The Commerce Programme is to prepare students for immediate employment and for higher education. But it is significant that the vocational aspect of commerce education should not be restricted to income. It should also inculcate some other qualities such as job satisfaction, social responsibility, social ethics, etc. Moreover the commerce education should enhance the vocational competency of an individual also.

Check your Progress

Notes: a) Give your answer as instructed in each question.

      b) Compare your answer with those at the end of the unit.

7. What are the different types of values acquired?

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8. Why commerce education gives important for practical values?

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RECENT DEVELOPMENTS IN COMMERCE

Banking, marketing, insurance, communication, trade, etc. can be considered as the major areas of commerce. These are the fast developing areas as far as commerce is concerned. Now let us see the recent development that takes place in these domains of commercial activity.

1. **Banking:** With the advent of computers, banks can now offer to their to their customers a variety of new services such as (i) Electronic Funds Transfer System (EFTS)

(ii) Automated Teller Machines (ATMs) (iii)Debit Cards(iv) Credit Cards, and (v) Core Banking. Other most modern facilities offered by banks are Tele Banking, and Internet Banking. In the former, banking is carried on over telephone. In the later, Internet facility is made use of.

2. **Marketing**: In this age of information explosion, the computer and communication technology play a vital role in marketing. E-commerce is the practice of buying and selling products and services over the internet,

utilizing web, electronic data interchange, electronic fund transfers and smart cards. E-commerce enables us the online marketing and network marketing.

3. **Insurance:** Insurance is a method of averaging risks. This is an agreement between the insurer and the insured. Entry of private companies is noted as the major advancement in the field of insurance.

4. **Communication**: The fruits of fast changing technology are enjoyed by communication. This is evidenced by the successful application of a number of efficient devices of communication. Spectacular developments in this area are fax, internet, e- mail, extranet, video conferencing and teleconferencing.

5. **Trade:** Trade involves buying and selling of goods and services. Trade can be of two types- internal and external. Internal trade indicates transfer or exchange of goods and services within a country and external trade indicates trade among nations. Online trading is a recent development in the field of trade.

Business activities are fast changing in this dynamic world. During the 1990's a concept has evolved in the area of commerce called Business Process Outsourcing (BPO), BPO is a system of getting a business task done through an outside agency.

SUMMARY

Thus, we can say that commerce has an important place in the school curriculum. Education is a medium through which knowledge and intelligence required by an individual or society can be obtained or properly formulated. Commerce begins with functional aspects and then leads to liberal or ideological aspects. The individual and society get goods and services at their doorsteps. The commerce system deals with every part of human life and thus commerce education becomes an education for better living. The increasing number of students in commerce rather than other subjects indicates the importance or place of curriculum in the school curriculum. In the present scenario, it is very necessary that every citizen should have knowledge about the business world, so that he may be able to play the role as a responsible citizen.

KEY TERMS
- ❖ Commerce- Meaning and definition
- ❖ Nature and Scope
- ❖ Recent developments
- ❖ Commerce education- Definition and Importance

❖ Historical developments-Commerce and Accountancy Education: Need and Importance- Present day needs
❖ Correlation of Commerce and Accountancy with other subjects
❖ Values of teaching Commerce and Accountancy

ANSWERS TO 'CHECK YOUR PROGRESS'

1. According to James Stephenson, "commerce is concerned with exchange of goods, with all that is involved with the buying and selling of goods, at any stage in their progress from raw materials to finished goods in the consumer's hands. It covers not only functions of buying, selling and handling of goods, but also the many services which must be provided to finance, insurance, store and transfer of goods in the course of this exchange."

2. The main purpose of commerce education is to provide knowledge about the commerce and to prepare the student for vocational competency including training and development of skill. Commerce education is aimed at giving adequate knowledge about the wholesale trade, retail, export trade, import trade and entire-port trade. More-over it provides some knowledge about the movement of goods etc., Transport, Communication Insurance, Ware-housing, Money, Banking & Finance and Mercantile Agencies.

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3. With the fast changing economic scenario and business environment the commercial world is in a state of continuous flux. In tune with circumstance, commerce education has carved out a place for itself at the higher secondary and higher education stage. Its curriculum content should give students firm foundations in basic accounting principles and business studies to keep them abreast with the changes in its methodology concerning particular aspects of the subject. This would help to develop among students traits such as logical reasoning, careful analysis and considered judgement, limited only to the initiation level of the subject.

4. Economics, commerce is connecting with the whole of exchange and a part of production. Commerce includes all those activities that take place

in the flow of goods between producers and consumers. In Economics this aspect is known as "exchange the exchange parts of Economics is exclusively the contribution of Commerce. The commercial activities involved in this transfer include the activities of various middlemen involved in the exchange. These commercial activities complete the full cycle of economic activities. In short, we can say that Economics is the mother of commerce.

5. Geography studies about the earth. And it's climate, land scope, etc. The producers are producing agricultural goods and mineral products in tune with the climatic conditions of the region they inhabit. . The availability of such materials is always based upon the geographical conditions.

6. The mathematics is basic for accountant; it applies the fundamental arithmetical processes in preparing the accounts. Further in the field of sale tax, income tax, etc. Knowledge of mathematics is essential. Statistical techniques are profusely used for interpretation of data and for making predictions. All these make the relation between commerce and mathematics evident.

7. In order to study commerce education, any one learns so many values, particularly, Cultural Values, Disciplinary Values, Practical Values and Social Values.

8. The commerce education which gives practical values related more to the needs of various occupations at different levels in the hierarchy of employment form clerical to management level.

UNIT-END EXERCISES

1. Discuss the importance of commerce education in present day educational system.

2. Define the meaning of Commerce. Discuss the scope of Commerce in higher secondary stage.

3. Correlate the commerce education with other subjects like economics, mathematics, business management and commercial geography.

4. State different values of teaching commerce. Explain its advantages.

LEARNING OUTCOMES

After end of this unit, one has be able to:

- define the term commerce;
- knows the nature and scope of commerce subject;
- describe the recent developments in commerce;
- define the commerce education;
- knows the need and importance of commerce education;
- Status of commerce education in present day needs.
- State the importance of correlation of commerce and accountancy with other subjects,
- Identify the relationship between commerce and economics,
- State the relationship between commerce and mathematics, commercial geography and other allied subjects,
- Study various values of teaching commerce and accountancy

SUGGESTED READINGS

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Unit – II	PLANNING

Structure

- Introduction
- Unit Objectives
    - o Planning -Introduction
    - o Need and importance
    - o Instructional planning
- Year plan
- Unit plan
- Lesson plan
    - o Origin and development
    - o Model lesson plan
    - o Lesson plan preparation
- Bloom's taxonomy and different domains in teaching
- Summary
- Key Terms
- Answers to 'Check Your Progress'
- Unit end Exercises
- Suggested Reading

INTRODUCTION

Planning is a must in any field of activities, whether it is finance, education, defence, population, etc., Adequate and extensive planning helps the teacher to render his service very effectively. Every teacher has to think and plan for his work for the whole syllabus, for every unit for every lesson and for every period. Planning for the whole year is known as year plan. Planning for this unit is known as unit plan. This unit deals with the need and importance of planning, year plan and unit plan, steps required to construct the year plan and unit plan for commerce and accountancy classes.

LEARNING OBJECTIVES
After going through this unit, you will be able to:

- Explains the meaning ,need and importance of planning
- Understand the meaning of instructional planning
- State the various factors involved in the preparation of year plan and unit plan

- Bring out the various steps involved in the preparation of the year plan and unit plan.
- Explain about Blooms taxonomy and different domains in teaching
- Prepare a model year plan and unit plan

PLANNING: INTRODUCTION

Planning is the basic or primary function of management. In simple words, planning is deciding in advance what to do, when to do it, how to do it and who is to do it. According to Y.Dror, 'Planning is the process of preparing a set of decisions for action in future directed at achieving goals by optional means'. Planning involves determining objectives to be achieved, establishing planning premises, formulating policies, procedures and rules, determining alternative course of action, evaluating the available course of action and selecting the right type of action to achieve desired results. It is a preparatory step for action. An effective teacher plans his work carefully and well in advance. Planning ensures Co-ordination and full utilization of resources. Planning can also facilitates control of teaching - learning process.

Planning is pre-thinking, and taking decisions regarding future. Planning is an intellectual activity which aims at achieving certain objectives. Planning is flexible and continuous but directed towards efficiency. Planning is the foundation for successful actions of the teachers to achieve the objectives. Without clear objectives, planning will become waste and purposeless activity. In education, the objectives are essentials for effective planning of curriculum and lessons for teaching including evaluation. Without well defined objectives planning may not become an effective one. An effective planning ensures attainment of the intended objectives.

There is no single model for effective planning. The experienced teachers do not follow one model of effective planning; many teachers develop their own style of planning. For effective planning one should frame the objectives, select learning activities and materials and specify the evaluation procedures. Every day, teachers plan, select and create some activities in a meaningful order. A reasonable approach in planning is to make the teachers to master the objectives to show the intended changes in students' behaviours. The students' understanding of objectives can make their learning easier and more efficient and the teachers can easily plan the lesson and evaluate the performance of the students.

Planning is a series of related steps organized around and moving towards the accomplishment of an objective. The planning process should proceed

continuously determining 'what is' and 'what should be'. In a comprehensive educational planning, the planner at first defines the educational problems. Delineating the scope of the educational problems, he must study 'what has been' determining 'what is' and 'what should be' depending upon the resources and construction. Then only he should establish educational planning procedure.

NEED AND IMPORTANCE OF PLANNING

Planning is an important step in effective teaching. The plan determines what will be learnt by the students. Planning transforms the available curriculum into activities, assignment and tasks for students. Whatever the students learns or encounter in the classroom activities are based on the scientific planning. Teachers engage in several levels of planning. The planning by the teachers may be for the year, a term, a unit, a week and a day. The planning done at the beginning of the year can facilitate the teachers to plan for a term, for a unit, for a week and for a day. The planning reduces uncertainty but does not eliminate it in teaching because classroom activities cannot be controlled by even a best plan. It should be a flexible frame work for action. It can depart from or be an elaborate one rather than rigid scripts to accommodate the classroom situations and students involvement.

The importance of planning is,

- It makes the objective clear and specific and gives a plan of action to guide the efforts of the organisation towards achieving educational goals.
- It guides the efforts in a systematic way ensuring optimum utilization of resources, both men and material, available with the institution and makes various functions more effective and efficient.
- It seeks to get best advantage of the facilities and helps in saving time, effort and cost by eliminating all wasteful and unproductive activities.
- It involves drawing out plans of action for various departments, fostering co- operation and unity of purpose among them.
- It establishes and identifies specific goals to be achieved. These goals serve as standards of performance to be accomplished. If the actual performance deviates from the planned one, then necessary corrective steps are taken. Thus planning provides a base for control.
- It provides opportunities for creative thinking and innovation for educational planners.
- A systematic and orderly educational planning acts as a motivating force to the employees to contribute to the goals.

Thus, a proper planning is essential for attaining the objectives as it gives a right direction, ensures optimum utilization of resources, and fosters co-operation among the various groups and departments. The teachers are expected to plan a variety of planning activities. Such planning activities may be some of the following.

1.   Year (Annual) Plan
2.   Unit (Resources) Plan
3.   Lesson (Daily) Plan.

INSTRUCTIONAL PLANNING

Instructional planning is a process of the teacher using appropriate curricula, instructional strategies, and resources during the planning process to address the diverse needs of students. A teacher's teaching begins before he/she steps into the classroom and starts talking. Prior to each lesson, unit, semester, or school year, while teachers are planning the content of instruction, selecting teaching materials, designing the learning activities and grouping methods, and deciding on the pacing and allocation of instructional time, they are actually determining what learning opportunities their students are going to have. Teachers could use state or district curriculum standards, school district curriculum goals and objectives, and learning outcomes developed by professional organizations to plot the scope and sequence of subject topics. Teachers also could apply their knowledge of research-based practices to plan what strategies and techniques will be adopted to deliver instruction. Nevertheless, the most informative source for any instructional planning resides in the teachers' classrooms - the students.

YEAR PLAN

Planning for the whole year's work as part of the pedagogic analysis is known as year plan. After getting the work allotted, the teacher's first task is to plan for the year's work. This plan is known as Year Plan. By such a planning, the subject matter and other tasks related to curriculum transaction could be tallied with the total time at the disposal of the teacher. Proper utilization of all the inputs available also could be ensured. It helps the teacher to formulate objectives that could be realised during the year as a whole. Proper scheduling of evaluation and co-curricular activities too can be done. As such it should be taken up as a serious exercise.

Importance of year plan

It considers the dimensions of instruction and evaluation for the whole academic year. It is to think about what the students are expected to learn during the year. Hence students' previous learning, curriculum followed by the state government and other factors including classroom management are to be considered. This planning can ensure smooth sailing of whole year activities starting from beginning of the year and ending with final examination. This planning can ensure the achievement of objectives through curricular and co-curricular activities. The major importance of year plan is as follows;

1. It helps in the allocation of the total time available for each subject, and for each unit according to its importance.
2. It provides a basis for the preparation of unit plans.
3. Teacher can formulate objectives to be attained by teaching a particular subject in it's totality during the course of the year.
4. It helps a teacher to divide the subject into units and specify time for each, which in turn provides a basis for timely and continuous evaluation.
5. It helps in arranging the units according to the difficulty levels as well as logical considerations and thus makes learning psychologically and logically sound.
6. The teacher can systematize the distribution of curriculum material.
7. The teacher can bring variety in teaching strategies by mingling various types of topics that call for various types of learning experiences. So this would reduce the monotony in learning.
8. A well thought out year plan can help in saving time and effort of the teacher as well as that of the learner.

Steps in year planning

While planning, the teacher would have to consider the following factors:
➢ The units to be taught in the subject
➢ The objectives to be realized through the various units.
➢ The number of periods available during the year.
➢ The number of periods to be assigned for testing.

Formation of units:

The first step in the preparation of a year plan is to reorganize the subject content on the text book into suitable units. This is to be done only if the subject matter is not systematically and judiciously distributed and presented. "A unit may be defined as a large sub-division of that subject matter where in a principle

of a topic or a property is central to the well organized matter". Example - Journal, Ledger, Trail Balance, Final Accounts etc.,

A. **Objectives to be realised:**

While preparing the year plan the teacher has to intelligently anticipate the extent to which the various objectives can be achieved through different units. Some units give more scope for the development of skill than other objectives. This can be clearly visualised in the case of Commerce and Accountancy. Almost all objectives are developed simultaneously in the teaching - learning process, but with different weightages. This can be done by giving more or less weightage in terms of grades (A, B, C, D and E) that the teacher wants to give to various objectives. It has been suggested that period wise distribution of objectives for each unit should be mentioned

YEAR PLAN

Subject: Accountancy   Std: 11th Total periods: 190

Units	Knowledge	Understanding	Application	Skill	Total Teaching Periods
Ledger	3	3	11	4	21

All these objectives are developed simultaneously in a teaching, learning process. Therefore it is very clear that this type of planning is impracticable. It is meaningful one, because it indicates the weightage to be given to particular objective while dealing with the unit.

B. **Time available for teaching:**

Teacher should consider the time factor at the time of planning. He should calculate the total number of periods available for his subject. While calculating the time factor he should consider the non availability of the periods during the examination time, sports and games week, preparatory days for examination, school social gathering days etc., the teacher may not be able to increase or decrease the total number of periods available for his subject. But he can use his discretionary to assign a particular number of periods to the different units of a subject.

C. **Time required for testing:**

The teacher should also take into account the number of periods required for unit testing. After completing one particular unit the teacher can conduct a test known as unit test. In preparing year plan, the number of periods required for testing per unit should also be mentioned. All these four aspects and general information such as subject, the standard, etc., are to be shown in the year plan.

Check your Progress

Notes: a) Write your answer in the space given below
         b) Compare your answers with those given at the end of the unit

1. Plan for the year is known as................................plan.
2. What is the importance of year plan?
....
....
List out the various steps in preparing year plan.

....
....

UNIT PLAN

When the subject matter in the text book is not adequately grouped and presented the teacher has to recognize the subject matter into suitable units. A unit may be defined as a large sub division of subject matter wherein a principle of a topic or a property is at the centre of the well organized matter.

A unit should satisfy the following criteria,

1. It should signify the unity or wholeness of learning activities related to some problem or project.
2. It should emphasis the psychological principle of "learning by whole".
3. It should be given importance to integrated learning outcome.
4. It should not represent only the subject matter but learning experience as well.
5. It should organize a similar type of content and
6. It should be organized in which a way that it achieves certain set of specifications and objectives.

Some of examples for units in Commerce and Accountancy are,

Commerce: Trade, Sole trader, partnership firms, Joint Stock Companies, Banking, Insurance

Accountancy: Introduction to accounting, Journal, Ledger, Subsidiary books, Trail Balance, Final account, Rectification of Errors.

The planning for a unit is known as the unit plan. If the teacher knows the subject matter of each and every unit very well, he can prepare the unit plan after preparing the year plan. Availability of the period is very important aspect for the preparation of unit plan. The teacher comes to know the period available for each unit only after the preparation of year plan. Therefore a teacher, who is experienced and competent enough in the subject matter, can prepare the unit plan after preparing the year plan. But he should prepare the year plan bearing in mind in and outs of the units of the subject.

While planning a unit, the following factors should be borne in mind;

a) Objective and specification - why aspect of the unit.

b) Content analysis - what aspect of the unit.

c) Learning activities - how aspect of the unit.

d) Testing procedures - evidence of achievement.

Importance of unit plan

Like Year Plan, the unit plan also helps the teacher for attaining the desired objectives in a stipulated span of time. It will give him freedom that will enable him to become a better teacher. The importance of the unit plan is as follows;

a) Unit plan assists the teacher in arranging the contents of the unit in a meaningful way.

b) Teacher can utilize, the time and periods available for each unit in an effective and balanced manner.

c) Unit plan helps a teacher in achieving the expected learning objectives effectively.

d) The methods, techniques and teaching aids to be used for the particular unit can be planned in advance.

e) Unit plan provides a basis for evaluating student performance,

f) Unit plan provides a basis for the preparation of lesson plans.

g) Unit plan saves the time and energy of both the teacher and the learner.

h) Unit plan helps a teacher in arranging the topics according to the individual needs of the learner so that each learner gets an opportunity to make worthy contributions.

i) It helps a teacher in providing information regarding the books and learning materials that could be effectively used in instruction.

Steps in unit planning

The teacher should have thorough idea about the subject matter of the unit before he makes an attempt to write the unit plan.

1. **Content analysis:** This analysis helps the teacher to provide the subject matter in an orderly sequential manner, that is, from simple to complex or abstract to concrete. It also helps the teacher to have a full awareness of the teacher to enter the class, since he has mastery over the subject matter. It helps the teacher to remember all the points at the same time of teaching.

2. **Objectives and specifications:** The second step is to find out the objectives and specifications which can be realised through the particular unit. Units 3 and 4 of Block 1 dealt with these matters.

3. **Learning activities:** Another step is to organize the activities which help to achieve the listed objectives. In order to provide good learning experiences the teacher must choose the best method of teaching suitable for that particular unit. The teacher should bear in mind the following points in order to provide good learning experiences: individual differences, psychology of the pupils, objectives and content portion.

4. **Evaluation:** The last step by which the teacher know whether the listed objectives are achieved or not. It is the evidence of the achievement of the objective on the part of the pupils. Here the teacher can adopt the various types of evaluation tools and techniques.

Check your Progress

Notes: a) Write your answer in the space given below

b) Compare your answers with those given at the end of the unit

4. Plan to teach a particular unit is known as................plan.
5. Plan to teach the cash book is an example for.....................plan.
6. Testing procedures act as a...of achievement.
7. What is the use of unit plan in teaching commerce and accountancy?

....

....

LESSON PLAN

A lesson is defined as a series of learning experiences, which occurs in a single block of time on a particular day. The total educational programme is divided into the smallest unitary subdivisions which are called as lessons. Stands (1949) define," Lesson plan is actually a plan of action. It therefore, includes the working philosophy of the teacher, his/her knowledge of philosophy, his/her information about and understanding of his/her pupils, his/her comprehension of

the objectives of education, his/her knowledge of the material to be taught, and his/her ability to utilize effective methods". Lee (1965) states" A lesson plan is an organized statement of general and specific educational goals together with specific means by which those goals are to be attained by the learners under the guidance of the teacher on a given day".

Lesson plan is considered as the teachers' mental and emotional visualization of the classroom experiences. Lesson plans are prepared based on the objectives. Objectives are the end views towards which every action in the classroom is to be planned. Therefore, entire lesson plan must be focused towards objectives. It was an erroneous belief held for many decades that, education meant only a series of lessons meant for gathering knowledge and the school was a place where these lessons were given. It has been realised increasingly that a lesson is not merely a means of giving out instruction. It can be an occasion for the pupils to gather information, for processing and understanding these as well as reflecting over these understandings to draw fresh conclusions. It can also provide scope for self activity to the pupil, under the direction, guidance and stimulation of the teacher. For this, each lesson must be planned in advance. The plan for a single lesson (say for a period) is known as a lesson plan. The lesson plan helps the teacher to utilize the limited available resources in a best manner to change the behaviour of the students. A planned lesson is logical in treatment. It achieves the desired aim and it creates a love in the pupil for further knowledge. Lesson plan is very important even top an experienced teacher. It the class is allowed to drift through the activities the lesson will be spoiled. The lesson plan helps the teacher to realize the instructional objectives. It also provides an occasion for learning thinking and understanding.

It helps the teacher to start the lesson on the basis of previous knowledge of the students and to give the directions, on which the pupils should move next. It is the teacher's mental and emotional visualization of the classroom experience as plans it to occur. It is in many ways the core, the heart of effective teaching" " yet it is potentially the most rewarding sort of professional that a teacher can do, because, in this planning the teacher has opportunity to use every bit of his skill, intelligence, ability and personality". In simple, it provides an opportunity to become a efficient and excellent teacher.

Origin of lesson planning

According to Gestalt psychology, our attention goes to the 'whole' rather that to the 'parts'. When we perceive a figure, our attention goes first to its 'whole' then, we analyse its different parts. We experience 'whole' in the perception with the help of 'unit'. As learning is considered as 'unit', to

understand 'whole', pupils seek the help of 'unit' and the 'whole' is communicated by the 'unit'

Need for lesson plan

The specific needs for planning a lesson are listed below:

1) Lesson plan promotes self-confidence of the teacher.
2) It should ensure the use of previous knowledge of the students.
3) It provides definite objectives for every day class work.
4) It provides suitable learning experience to achieve the objectives.
5) It determines the activities for students and teachers.
6) It should suggest the suitable teaching aids to achieve effective teaching.
7) It prevents waste in the classroom. Economy of time and efforts can be achieved.
8) It involves most suitable methods and techniques.
9) It provides suitable illustrations and questions.
10) It provides opportunities to the teacher to experiment his own ideas.
11) It provides opportunity for individual work and learning.
12) It provides maximum freedom and flexibility in teaching.
13) It provides an opportunity for the review of whole lesson at the end in the form of review questions to fix the lesson in the minds of the students.
14) This could be prepared after considering the individual differences of the students. The questions and assignments are planned and provided in the lesson plan suitable to gifted, average and dull students.

Principles of lesson plan

Every teacher should know the essential principles of a good lesson plan.

1. A good lesson plan should be preferably written.
2. It should give information regarding the subject, topic, strength, date and time allotment for the particular class.
3. It should contain the general objectives.
4. It should also include the specific objectives which are going to be achieved after the completion of the lesson.
5. It should list out all the instructional aids that are to be used for particular period charts, diagrams on the black board, films, filmstrips and other audio-visual aids.
6. The materials of instruction or subject matter should be well selected and organised in an orderly manner.
6. t should be built up on the previous knowledge of the class.

8.   It should explain the learning activities provided to the students.

9.   It should indicate the teaching techniques to be used by the teacher how the lesson is to be presented, what methods are to be followed, what questions are to be asked and what illustrations are to be used.

10.   It should give place for evaluation by which the teacher is able to know whether he has achieved his aims.

11.   It should contain review or recapitalization i.e., an outline or summary of whole lesson taught in the particular period.

12.   It should include one or two assignments for pupils to strengthen learning.

Check your Progress

Notes: a) Write your answer in the space given below
b) Compare your answers with those given at the end of the unit

8. What is the need for lesson plan?

....
....
....

9 .Is lesson plans is objectives based?

....
....

Steps in a lesson plan

Before developing the script for a lesson plan as a written record for use, the teacher has to decide upon all the relevant details of the various aspects to be taken care of. Also, the order and the way in which these are to be presented should be planned. Then only this written script is an authentic aid for effective instruction. This planning should consider the steps discussed below.

Introduction: It is the most important part of the lesson plan. It pertains to preparing and motivating students to the lesson content by linking it to their precious knowledge, by arousing curiosity and by appealing to their senses. For this he uses the method of questions and answers having a bearing on the previous knowledge of the students.

Presentation: It involves stating of the object of the lesson. The teacher should state the object in such a way that it may not pose a problem before the students. The statement should be short, definite and attractive. The teacher should expose the students to the new information. While writing this part he may divide his plan in two parts. In one part should be presented in systematic manner the subject or topic to be taught. In the second part may be stated the method of teaching aids should be made during presentation of learning material

along with students' participation of learning material along with students' participation in the lesson through question. An attempt should be made to associate the learning material to daily life situations by citing examples and by drawing comparison with the related concepts.

Generalisation: When the topic has been made clear to the students, the teacher should make an effort to draw generalization with the help of definition, principle etc. The students may be encouraged to draw generalizations themselves. They must realize that they have got new knowledge and are able to apply it.

Application: Now an effort is made to apply the knowledge gained to certain situations. This is likely to result in reinforcing the new knowledge on students.

Recapitulsation: It is assessing the effectiveness of lesson by asking the students questions on the contents of the lesson. The questions should be pointed ones.

Blackboard Summary: After finishing the topic, the teacher should write down the summary of the topic or the lesson on the blackboard with the help of the students. Summary should be short and definite.

Home Assignment: In order to strengthen the knowledge and the experiences, the students should be given some home assignment. The students should be asked to write down certain things or do some experiments.

2.7.3 Lesson plan preparation

Why everyone is giving very much important for the lesson plan and what are the requirements in a preparing the lesson plan is,

1. **Clarity of Objectives:** There should be clarity of objectives. It will make the both pupils and the teachers active to achieve them.

2. **Knowledge of the Subject:** The teacher should know his subject well for preparing the lesson plan. If they have no clarity about their subject teachers fail to clarify various facts and events of the lesson. Pupil-teachers should read the whole lesson plan which they have prepared. They should not read the text-book only, but also read other supplementary books and the available material concerning the topic.

3. **General knowledge of all subjects:** The pupil teacher should also possess general knowledge of all the subjects, because the knowledge is a complete unit and it cannot be divided into different parts. Hence, to teach any subject properly the teacher must know the other related subjects.

4. **Knowledge of the principles and strategies of teaching:** The teacher must know the principle of teaching, maxims of teaching, teaching methods and techniques to enable him to mention the teaching methods and techniques in the lesson plan.

5. **Knowledge of student's Nature:** The teaching method will be advantageous only when the nature of the pupils is known along with knowledge of the subject-matter.

6. **Clarity about previous knowledge:** While preparing the lesson plan, the teacher should know the previous knowledge of the pupils because the new knowledge imparted on the basis of previous knowledge is easily stablilised.

7. **Knowledge of the class level**: The teacher should know the class level for which he is to prepare the lesson plan which some fresh teachers overlook. This disturbs the whole teaching and the pupils fail to understand anything.

8. **Division of Units**: While preparing the lesson plan, the teacher should divide the topic in units. Also, teaching method or strategy should be determined. This simplifies the presentation of the lesson plan. It is acquired easily by both the pupils and the teachers.

9. **Use of Material Aids:** While preparing the lesson plan it should be decided at what step the material aid is to be used and what is to be clarified with that aid. This maintains the originality and interesting feature of the lesson.

10. **Flexibility:** The teacher is free to make changes in the lesson plan in order to create attraction and interest in the lesson. The teachers don't be slave on the lesson plan.

11. **Time Conscious:** While preparing the lesson plan the teacher should have time sense. He should know it clearly how much time it will take to present the lesson before the pupils and how many activities can be performed in the prescribed duration.

Check your Progress

Notes: a) Write your answer in the space given below

b) Compare your answers with those given at the end of the unit

10. Lesson plan is a guide to the teacher trainee- Do you agree.

....

....

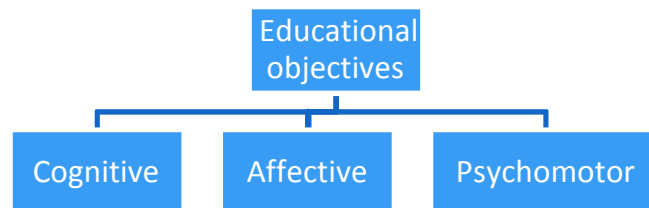11. What are the basic steps required to a lesson plan.

BLOOM'S TAXONOMY AND DIFFERENT DOMAINS IN TEACHING

If education is to be meaningful and is to achieve the goals laid down by the planners not only should it have clearly defined objectives, but it should also have suitably designed methods for and comparing the achievement levels with the stated objectives. Only then will it be possible to identify deficiencies and take suitable remedial action to improve the system performance. Education is chiefly concerned with producing or modifying the patterns of behaviour in human beings. It uses subject matter areas to bring about these changes. But education is essentially a mental process and unfortunately there are no direct means for ascertaining whether one possesses knowledge or not. We therefore have to rely essentially on the identification of the kind of behaviour which a person possessing the specified knowledge exhibits on completion of the learning process. It is, therefore, necessary that the objectives are know as "Behaviour a student will exhibit after acquiring the knowledge or simply what he will be able to do on completion of the learning, which he will not be able to do before he has learnt it".

After considerable research and investigation, the eminent Educational Psychologist, Benjamin S. Bloom and his associates of USA have come to the conclusion that educational objectives describing student behaviour can be classified three broad categories or domains and these categories are in hierarchical order.

1. Cognitive
2. Affective
3. Psychomotor

The interrelationship among the three domains can be diagrammatically represented as shown below:

```
          ┌─────────────┐
          │ Educational │
          │ objectives  │
          └─────────────┘
        ┌───────┼───────┐
   ┌─────────┐ ┌─────────┐ ┌──────────────┐
   │Cognitive│ │Affective│ │ Psychomotor  │
   └─────────┘ └─────────┘ └──────────────┘
```

(Knowing) (Feeling) (Willing or Doing) Intellectual abilities - Emotions Manipulative and Information processing, Appreciations,   Motor   skills Thinking problem Interests, Solving Attitudes, and Values

These domains are hierarchical because when learning takes place, the first activity is a mental process trying to understand, analyse, synthesize and link up or associate the information with something already known. This thought process

comes under the cognitive domain. In the second stage, the knowledge acquired begins to produce changes in the interest, attitudes and feelings of the individual and objectives describing these changes are categories belonging to the affective domain. It may be noted that changes in the three domains are interrelated and mutually dependent. Cognitive changes act as pre- requisite for affective changes while both of these together acts as pre-requisite for bringing about changes in the psychomotor domain.

Check your Progress

Notes: a) Write your answer in the space given below

　　　　b) Compare your answers with those given at the end of the unit

12. What are the three domains of the taxonomy of objectives?

....

....

COGNITIVE DOMAIN: (B. S Bloom, 1956)

Besides the above classification, each domain can be further split up into major categories which are also in a hierarchical order and these categories are described below:

The cognitive domain represents the intellectual component of mental life. It is the primary and important aspect of education. This domain includes those objectives which deal with knowing, thinking and problem solving. Under this domain six major classes of objectives are arranged in hierarchical order. The sequence is on the basis of complexity of tasks from simple to complex.

Knowledge____Comprehension_____Application____Analysis_____

Synthesis_____Evaluation

a)　**Knowledge:** This is the lowest category and implies mere remembering of previously learned material. It includes knowledge of common basic terminology, specific, facts, methods and procedures, fundamental concepts and practices, etc.

b)　**Comprehension:** The next higher category is comprehension or understanding of facts and principles, interpreting learnt material, translating verbal material to graphical or equation form, estimating consequences implied in data and extrapolation of information, etc.,

c)　**Application:** The higher category includes application of concepts and principles of new situations, application of laws and theories to practical situations, solving problems, constructing charts and demonstrating correct usage of a method or procedure etc.,

d) **Analysis:** This category includes the abilities to recognize assumptions and logical fallacies in reasoning and analyze organizational structure or identify components part of a whole problem, etc.,

e) **Synthesis:** It is complex ability at a higher level of cognition. This involves the ability of an individual to put together elements or parts so as to form a meaningful whole or a new pattern. It involves the ability to give new shape or structure to statements or procedures.

f) **Evaluation:** This is the highest level of cognitive structure. It is also the most complex ability which involves all the earlier abilities. It enables an individual to judge a material, method, product or process against a standard and to establish the worth of it. Judgments are both quantitative and qualitative.

All these abilities in the cognitive domain are not mutually exclusive. They are in a logical order. The objectives aimed at in one classes maintaining the sequence of the taxonomy. Application of knowledge is not possible without comprehension.

Check your Progress

Notes: a) Write your answer in the space given below

b) Compare your answers with those given at the end of the unit

13. The lowest level of objectives under cognitive domain is…………………..

14. The highest level of objectives under the cognitive domain is …………………..

AFFECTIVE DOMAIN: (Krathwohl, 1964)

This is another important aspect of human nature which includes feelings, interest, appreciation, attitudes and values. The affective domain is divided into five major classes of objectives which are arranged along a hierarchical continuum. These are the behavioral abilities which lead to the realization of any one of the five aspects given above. These are as follows:

1) **Receiving:** The lowest category in this domain refers to a student's willingness to attend a classroom activities or stimuli and is denoted by acts such as (1) listening attentively, (2) showing sensitively to human needs and social problems, etc.,

2) **Responding:** This refers to active participation on the student and is characterized by (a) completion of assigned work (b) obeying rules and regulations (c) participating in discussions (d) showing interest in the subject (f) enjoying helping others, etc.,

3) **Valuing:** This refers to the value or worth a student attaches to a subject, phenomenon or work and can vary from a mere acceptance to (1) a demonstration of belief (2) an appreciation of the role of science and technology (3) showing concern for the welfare of others (4) demonstrating problem solving attitude, etc.,

4) **Organization:** This category is concerned with a bringing together different values, resolving conflicts between them and development of an internally consistent value system. This ability is characterized by (1) recognizing the role of planning in solving problems (2) accepting responsibility for own behaviour (3) understanding and accepting strengths and weakness, etc.,

5) **Characterization by a value or value complex:** The final category denotes the development of a characteristic 'life style' with consistent and predictable based on a value system that the individual has developed. This is characterized by demonstration of self-reliance, punctuality and self discipline, etc.

Check your Progress

Notes: a) Write your answer in the space given below
          b) Compare your answers with those given at the end of the unit

15. Give the major classes of affective domain.

....

....

PSYCHOMOTOR DOMAIN: (Dave, 1969)

Functions are performed by individuals as a result of neuromuscular co-ordination. The stronger the co-ordination, the more rapid, speedy and automatic the action becomes. The abilities for engaging in actions with skill are classified under the psychomotor domain. Five hierarchical stages have been identified in the development of a skill.

i.   **Imitation:** It is the lowest level of neuro-muscular activity. It starts as impulse and may grow into an overt act with the capacity to repeat the performances.

ii. **Manipulation:** It involves differentiating among various movements and selecting the proper one.

iii. **Precision:** Practice or repetition of performance will decrease the faults in performance. Precision is related with speed, accuracy, proportion and

exactness in performances.

iv. **Articulation:** The individual will be able to handle many actions in unison. This ability involves co-ordination in action.

v. **Naturalization:** Perfection in performance is the final level in psychomotor skill. On attaining perfection, actions become automatic. Development of ability for psychomotor activities (or skills) related to the discipline is a very important objective to be realized by commerce education. Finally although all three domains are fairly important, as far as classroom instruction is concerned, we can limit ourselves to each area of subject matter what level of abilities has to be developed and prepare a set of objectives at that level.

Check your Progress

 Notes: a) Write your answer in the space given below

           b) Compare your answers with those given at the end of the unit

16. What are the major sub skills of psychomotor domain?

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MODEL LESSON PLAN

Name of the Teacher trainee	:	R. Siva Sai
Name of the School	:	AVB Hr.Sec School
Subject	:	Accountancy
Unit	:	Cash Book
Std & Sec	:	XI 'D'
Topic	:	Double column Cash book
Date : Strength	:	40 Students
Duration	:	45mts

Instructional Objectives

The pupil

- acquires knowledge about double column cash book, discount and cash discount
- understands the term such as trade discount, cash discount and method of preparing cash book
- applies his knowledge and understanding to solve the problems, related to, double column cash book
- develops skill in drawing the double column cash book neatly and accurately and create proper interest towards cash book

Specifications:

The pupil

➢ recalls the rule for entering transactions in the cash book

➢ identifies the receipt side and payment side

➢ recognises the two kinds of discount.

➢ compares the double column cash book with simple cash book gives reason in putting one transaction in the receipt or payment side

➢ explains the meaning of trade discount and cash discount.

➢ differentiates the trade discount and cash discount.

➢ draws double column cash book,

➢ narrates the importance of the double column cash book.

Instructional Aids:

Chart showing the discount and its kinds with examples, Chart showing the format of the double column cash book.

Steps	Specification	Learning Experience	Evaluation	Remarks
MOTIVATION Recalls the Importance of cash book	recalls the various kinds of cash book and the importance of cash book.	Discussion about the importance of cash book and its kinds. Thou- sands of transactions are taking place in business. Cash book help us to find out the receipts, payments and balance cash in hand.	What are the different kinds of cash book?	
PRESENTATION Double column cash book	identifies the receipt side and payment side.	The chart is used to explain the way of drawing double column cash book and the following questions, are put to the students. Which is the receipt side? Which is the payment side? How do you enter the, cash transactions in the cash book?	Draw the format of the double column cash book.	

Rules for entering the transaction in the cash book	recognises the rule for entering the cash transactions.	Black board is used to explain the way of entering transactions in the cash book. If any cash *is I received by the business then we must put it in the debit (Receipt) side. If any cash is paid by the business then we must put it in the credit (Payment) side.	How do you enter the transactions in cash book?	
Discount	Compares the double column cash book with simple cash book. States two types of discount	The teacher explains the meaning of discount audits kinds with the help of chart. There are two types of discount, trade discount and cash discount	What are the two types of discount?	

Steps	Specification	Learning Experience	Evaluation	Remarks
Trade discount	Explains trade discount	The teacher explains with the help of various examples about the, Trade discount is the discount offered by the manufacturer to wholesaler or wholesaler to retailer		
	Gives example for trade discount	It is allowed as certain percentage on the prescribed price. It never comes in the account of both the parties	Explain the trade discount?	
		Discussing with the example of Discount given to the book:- sellers.		

Cash discount	Explains the cash Discount.	Chart is used to explain the cash discount. It is given by the creditor to the debtor. It will be recorded in the accounts of both the parties. It is allowed as certain percentage on the due amount. Chart is used to explain the way of putting the discount in the receipt side discount column	What is Cash discount.	
		Discount received is the profit. So it will be recorded in the discount column of payment side		

Steps	Specification	Learning Experience	Evaluation	Remarks
Comparison	Differentiate trade discount and the cash discount	The teacher explains the nature of the trade discount and cash discount as discussed earlier with examples. Also differentiate the nature of the discount and how it differs each other in their nature and function	Give examples of trade and cash discount.	
Importance	Narrates the importance of the double column cash book	Finally the teacher discuss with the students about the importance of the cash book with discount column and the uses, how it will help in the formation of the triple column cash book.		

Review

The teacher asks the following questions.

1. How do you enter the cash transactions in double column cash book?
2. What are the differences you might find with the double column cash book and simple cash book?

Assignment :

From the following particulars, prepare the cash book of Mr. Prabhu with cash and discount column.

1981 Jan.

1. Prabhu commenced business with cash Rs. 200000
2. Borrowed from Ravi Rs.50000
3. Bought goods in cash Rs.80000
4. Received from sundar Rs. 25750 and allowed him discount Rs. 250
5. Paid cash to Arumugasamy Rs.15450 and discount allowed by him of Rs.550.
6. Received cheque from Mr. Rai Rs. 50000 and account settled for the due of Rs.51000.
7. Bought furniture in cash Rs.12650.

Signature of the Teacher Trainee   Signature of the Guide Teacher

SUMMARY

In this unit, we discussed the meaning of planning, need, importance of planning and year plan and unit plan. In order to attain the objectives designed by the teacher, it can be achieve only through the proper planning. This unit pave a way for the teachers handling commerce and accountancy, how to handle the classes to complete the entire syllabus prescribed by the Government of Tamilnadu through the year plan and the unit plan. For helping the teachers, the model year plan and the unit plan are also discussed.

This unit clearly discussed that the teacher trainees should write the lesson plan in detail before commencing the task of teaching. But mere writing of the lesson plan is not everything. The trainee who prepares the lesson plan but does not memorise it, can neither present the subject matter in a sequence not is he able to establish the relationship between various units. So this unit more emphasis on the meaning of the lesson plan, importance and its principles are discussed in detail. For the successful completion of the practice teaching, the method of writing lesson plan is more important, this unit a model lesson plan for commerce and accountancy were given separately for the benefit of the trainees.

KEY TERMS

❖   Planning -Introduction
❖   Need and importance
❖   Instructional planning- Year plan-Unit plan-Lesson plan
❖   Bloom's taxonomy and different domains in teaching

ANSWERS TO 'CHECK YOUR PROGRESS'

1. Year

2. The year plan helps in arranging the units according to the difficulty levels as well as logical considerations and thus makes learning psychologically and logically sound. The teacher can bring variety in teaching strategies by mingling various types of topics that call for various types of learning experiences. So this would reduce the monotony in learning. Teacher can formulate objectives to be attained by teaching a particular subject in its totality during the course of the year. This planning can ensure smooth sailing of whole year activities starting from beginning of the year and ending with final examination. This planning can ensure the achievement of objectives through curricular and co-curricular activities.

3. The important steps necessary for the year plan are the units to be taught in the subject, the objectives to be realized through the various units the number of periods available during the year and the number of periods to be assigned for testing.

4. Unit

5. Unit

6. Evidence

7. The unit plan helps the teacher, to provides a basis for evaluating student performance, preparation of lesson plans, saves the time and energy of both the teacher and the learner, providing information regarding the books and learning materials that could be effectively used in instruction and helps a teacher in achieving the expected learning objectives effectively.

8. The basic need for the lesson plan is, it helps the teacher to start the lesson on the basis of previous knowledge of the students and to give the directions, on which the pupils should move next. It also helps the teacher has opportunity to use every bit of his skill, intelligence, ability and personality. This could be prepared after considering the individual differences of the students. The questions and assignments are planned and provided in the lesson plan suitable to gifted, average and dull students. It saves the time in the classroom.

9. Yes, it is objective based and the lesson plan is considered as the teachers' mental and emotional visualization of the classroom experiences. Lesson plans are prepared based on the objectives. Objectives are the end views towards which every action in the classroom is to be planned. Therefore, entire lesson plan must be focused towards objectives. The lesson plan

helps the teacher to realize the instructional objectives. It also provides an occasion for learning thinking and understanding.

10. True. It is a guide to the trainees. It indicates the teaching techniques to be used by the teacher how the lesson is to be presented, what methods are to be followed, what questions are to be asked and what illustrations are to be used. It should explain the learning activities provided to the students. It should give place for evaluation by which the teacher is able to know whether he has achieved his aims.

11. The requirements for a lesson are, clarity of objectives, knowledge of the subject, general knowledge of all subjects, knowledge of the principles and strategies of teaching, knowledge of student's nature, clarity about previous knowledge, knowledge of the class level, knowledge of the class level, division of units, knowledge of the class level, division of units, use of material aids, flexibility and time conscious.

12. Benjamin S. Bloom and his associates of USA have come to the conclusion that educational objectives describing student behaviour can be classified three broad categories or domains, they are (i) cognitive domain (ii) affective domain and (iii) psychomotor domain.

13. Knowledge

14. Evaluation

15. Receiving, Responding, Valuing, Organization and Characterization.

16. Imitation, Manipulation, precision, Articulation and Naturalisation.

UNIT END EXERCISES

1. Prepare one year plan for the higher secondary second year commerce syllabus.

2. How the unit plan is helpful to the commerce and accountancy teacher?

3. "Planning helps the teacher to accomplish the objectives"- Discuss.

4. Draw various steps in the preparation of the Unit Plan.

5. What is meant by lesson plan? What are the principles of a good lesson plan?

6. State the important points to be kept in mind before preparing a good lesson plan.

7. Write one lesson plan for the topic 'Banking" to teach the students of higher secondary school.

8. State the specific objectives of teaching commerce.

9. Write a note on the taxonomy of instructional objectives.

LEARNING OUTCOMES

At end of this unit, you will be able to:

- Explains the meaning ,need and importance of planning
- Understand the meaning of instructional planning
- State the various factors involved in the preparation of year plan and unit plan
- Bring out the various steps involved in the preparation of the year plan and unit plan.
- Explain about Blooms taxonomy and different domains in teaching
- Prepare a model year plan and unit plan

SUGGESTED READING

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Unit – III	ACQUIRING OF TEACHING SKILLS AND PROFESSIONAL DEVELOPMENT

Structure
o Introduction
o Learning Objectives
o Micro teaching
 ▪ Meaning and Definition
 ▪ Origin, History & Development
o Micro teaching cycle
o Important skills
 ▪ Skill of Introducing A Lesson
 ▪ Skill of Reinforcement
 ▪ Skill of Stimulus Variation
 ▪ Skill of Explaining
 ▪ Skill of Ilustrating With Examples
 ▪ Skill of Using Black Board
 ▪ Skill of Probing Questions
o Steps And Procedure In Micro Teaching
o Integration of teaching skills
o Professional development
 ▪ Pre service
 ▪ In service
o Qualities of commerce teacher
o Social responsibility of commerce teacher
o Problems faced by the commerce teacher
• Summary
 o Key Terms
 o Answers to 'Check Your Progress'
 o Unit end Exercises
 o Learning Outcomes
 o Suggested Reading

INTRODUCTION

In teacher education programme teaching occupies a vital place. Unless the teacher can be effective in the class room, the knowledge of theory and other things is of no use. Therefore, in order to improve the teaching skill new devices like micro teaching have come into the field. This unit helps you to understand

the history of development of micro teaching, definitions given by various scholars on micro teaching, steps, advantages and disadvantages of micro teaching are shown. The success of the micro teaching depends on practice by the teacher trainees. The realization of the anticipated educational goals cannot be realized unless the teacher who is responsible for transacting the curriculum does not possess the insights, qualities, competencies and skills for effectively performing that exercise.

LEARING OBJECTIVES

After going through the unit, should be able to,

- ✓ Explain the history and development of micro teaching.
- ✓ Study the definition and meaning of micro teaching.
- ✓ List out the various steps in preparing micro teaching skill.
- ✓ State the advantages and disadvantages of micro teaching.
- ✓ List out the various skills which are essential for effective teaching.
- ✓ State the components of various sub skills.
- ✓ Explain the meaning of link practice.
- ✓ Write the lesson scripts for each skill.
- ✓ Explain the qualities and qualification required for a commerce teacher.
- ✓ Study the duties and responsibilities of a commerce teacher.

MICRO TEACHING

Micro-teaching was introduced in India in 1967. In India, the first book on Micro- teaching was written by N.L. Dosajh under the Caption 'Modification of Teacher Behaviour through Micro Teaching (1977).

It is a training procedure for teacher preparation aimed at simplifying the complexities of the regular teaching process. Micro teaching is a scaled down sample of teaching in which a teacher teaches a small unit to a small group of 5 to 10 pupils for a small period of 5 to 10 minutes. Such a situation offers a helpful setting for a teacher to acquire new teaching skills and to refine old ones. Micro teaching is a new design for teacher training, which provides trainees with feedback about their performance immediately after completion of lessons.

Teaching is a complex skill comprising of various specific teaching skills. During the teaching-learning process the teacher motivates, explains, demonstrates, questions the students, uses the black board, gives illustration etc,. Each of these activities relate to skills of teaching. These teaching skills are inter-related teaching behaviours and help in the realization of specific instructional objectives. These component teaching behaviours may be modified through adequate practice.

One of the new practices evolved for modifying the teacher behaviour in a step-by-step process is micro teaching. Teacher behaviour can be modified through the exercise done in micro teaching and thus a teacher may be able to improve the necessary teaching skills for becoming an effective teacher.

MEANING AND DEFINITION

Micro teaching provides opportunity to select one skill at a time and practice it through its scaled down encounter and then take other skills in a similar way. Micro teaching is a 'scaled down' teaching encounter in which a teacher trainee teaches a small unit to a group of 5 to 10 pupils for a small period of 5 to 10 minutes.

A few definition on Micro - teaching are:

D.W. Allen (1966): "Micro Teaching is a scaled down teaching encounter in class size and time".

Allen and Eve (1968): "Micro teaching is defined as a system of controlled practice that makes it possible to concentrate on specific teaching behaviour and to practice teaching under controlled conditions".

Objectives of Micro teaching:

The following are the major objectives of Micro - teaching :

1. To enable teacher trainees to learn and assimilate new teaching skills under controlled conditions.

2. To enable teacher-trainees to gain confidence in teaching, and to master a number of skills by dealing with a small group of pupils.

3. To make use of the academic potential of teacher-trainees for providing much needed feedback.

4. To derive maximum advantage with the available material, money and time.

Characteristics of Micro teaching:

The important characteristics of Micro - teaching are,

1. It is a scaled down teaching

2. It is less complex than regular teaching.

3. It involves lesser number of students, usually 5 to 10.

4. Its duration is short - about 5 to 10 minutes.

ORIGIN, HISTORY & DEVELOPMENT

Micro teaching technique was first adopted at Stanford University, USA in 1961 by Dwight W.Allen and his co-workers and is now followed in many countries with modified and improved techniques, Dwight Allen of Stanford University who coined the term micro-teaching. Keith Acheson, a research scholar in the Stanford University who discovered that video-tape recorder could be used to provide feedback of a demonstration lesson. He along with other students of the Stanford University started using video tape recorder for modifying the behaviour of teacher trainees. Now in U.S.A., U.K. and Netherlands did pioneering work in micro-teaching.

Check your Progress

Notes: a) Write your answer in the space given below

b) Compare your answers with those given at the end of the unit

1. Micro teaching is adopted by the teacher educators to develop the ....

2. Micro teaching was first coined at……………..

3. The duration of the micro-teaching session is only from
    a. 5 to 10 minutes
    b. 20 to 30 minutes
    c. 30 to 60 minutes
    d. 10 to 20 minutes.

MICRO TEACHING CYCLE

Micro teaching is a training setting for the teacher trainee where complexities of the normal classroom teaching are reduced by:-

❖ Practicing one component skill at a time ,

❖ limiting the content to a single concept

❖ reducing the size to 5-10 pupils,

Micro teaching is a training technique and not a teaching technique. In other words it is a technique or design that is used for the training of teachers. It is not a method of classroom instruction or teaching like inductive-deductive, demonstration or question- answer method. It is micro or miniaturized teaching in the sense that, it scales down the complexities of real teaching. There is a provision of adequate feedback in micro teaching as it provides teacher trainees due information about their performances immediately after completion of their lesson.

In the Indian model of micro teaching developed by NCERT the standard setting for a micro class is already discussed under the steps and procedure of micro teaching. So the total time duration of a micro teaching cycle is 36 minutes.

This duration is divided as under:	Teaching session	6 minutes
Feed-back session	:	6 minutes
Replan session	:	12 minutes
Reteach session	:	6 minutes
Refeedback session	:	6 minutes
Total	:	36 minutes

Micro-teaching Cycle
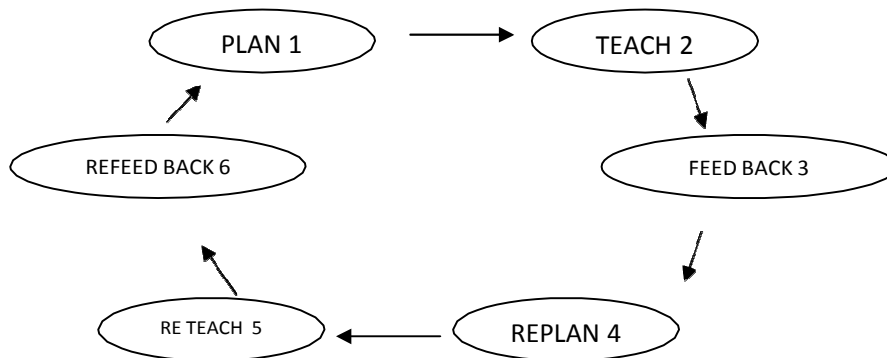
PLAN 1 → TEACH 2

REFEED BACK 6

FEED BACK 3

RE TEACH 5 ← REPLAN 4

Check your Progress
 Notes: a) Write your answer in the space given below
             b) Compare your answers with those given at the end of the unit
4. Define the term Micro-teaching

....
....

5. Bring out the steps required for Micro-teaching.

....
....

6. Give the detailed duration of micro teaching cycle.

....
....

IMPORTANT SKILLS

The following are the important micro-teaching skills:

Skill of Introducing a Lesson

When a teacher introduces a lesson, he gives a brief introduction about the lesson in order to pre-dispose the pupil's minds to it. This has to serve two main functions, namely refreshing and ensuring the pre-requisites and motivating the pupils to learn the new lesson. It can also act as the foundation for building up the new knowledge.

Components of the skill :

1. *Use of previous knowledge:* To satisfy the maxim of teaching from known to unknown, the teacher has to judiciously decide upon the pre-requisites that will be essential for properly presenting the new learning material. Then though questions or other tasks he has to ascertain whether these are available with the students. If gaps are identified these have to be filled by using appropriate strategies. This will act as an anchor for the presentation of new materials.
2. *Use of appropriate devices:* Many devices such as exposing, describing, narrating, illustrating, storytelling, role playing, presenting analogies, dramatization, using audio- visual materials, experimentation, demonstrations, etc., are used for motivating the pupils and to gradually lead them to the new learning material.
3. *Motivation, and*
4. *Continuity.*

Skill of Reinforcement

The skill of reinforcement may be defined as the judicious and effective use of reinforces by a teacher for influencing the pupils' behaviour in the desired direction. There are two types of reinforcement, viz., positive reinforcement and negative reinforcement. The positive reinforces provide pleasant experiences and contribute towards strengthening the desirable responses or behaviours. The negative reinforces provide unpleasant experiences and are used for weakening or eliminating the undesirable responses or behaviours. For better results the use of the positive reinforcement is to be increased while that of the negative reinforcement is to be decreased or eliminated.

Components of the Skill

The components of the skill of reinforcement may be listed as below:

A.   Desirable Behaviours

a.   Use of Positive Verbal Reinforcers: Positive verbal reinforces refer to those verbal behaviours of the teacher that bring positive reinforcement increase the chances for the pupils to respond correctly. They may be divided into the categories like,

(i)   The use of praise words such as 'good', 'very good', 'fine', 'yes', "well-done', 'excellent', 'right', etc.

(ii)   The use of statements accepting pupils feelings like "Yes you have judged correctly. Now explain it in detail",

(iii)   Repeating and rephrasing or summarizing pupil responses.

b.   Use of Positive Non-verbal Reinforcers: Positive non-verbal reinforcers refer to all those non-verbal (without words) behaviours of the teacher which bring positive reinforcement. They may be divided into the categories,

(i)   Writing the pupils' responses of the pupils on the blackboard

(ii)   Use of gestures and other non-verbal actions conveying pleasant feelings or approval of pupil responses like nodding of head, smiling, clapping, turning ears or moving towards the responding pupil.

c.   Use of Extra Verbal Reinforces: This type of reinforces fall midway between positive verbal and non-verbal reinforces and consists of such remarks as 'hm-hm', 'uh-uh' or 'Aaah, etc.

B.   Undesirable Behaviours

a.   Use of Negative Verbal Reinforces: Negative verbal reinforces refer to those verbal behaviours of the teacher that bring about negative reinforcement i.e. decreasing the chances for the pupils to   respond. Such reinforces may be categorized as under:

(i)   The use of discouraging words like 'no', 'wrong', 'incorrect', 'stop it' etc.

(ii)   The use of discouraging cues and voice tones as 'humph' in sarcastic voice,

(iii)   The use of discouraging statements like, 'I do not like what you are doing', "Do something else', 'That is not good', etc.

b.   Use of Negative Non-verbal Reinforces: Negative non-verbal reinforces are those non-verbal behaviours of the teacher that bring negative reinforcement. The examples of such behaviour are

frowning, raising the eye-brows, hand and disapproving stares, tapping foot impatiently and walking around etc.

c. **Inappropriate or Wrong use of Reinforces:** Only the proper and right use of reinforces will bring encouraging results. The following use of the reinforces should be avoided by the teacher:

(i) Using reinforces when not needed

(ii) Not using reinforces when needed

(iii) Using the reinforces in a less or excess amount than desired.

(iv) Encouraging or Reinforcing only a few responding pupils.

In the light of the meaning of the above discussed behaviours, a teacher is required to practice the occurrence of all the desired behaviours and avoidance of the undesired ones.

Check your Progress

 Notes: a) Write your answer in the space given below

         b) Compare your answers with those given at the end of the unit

7. State the components and sub skills of the reinforcement skills.

....

....

Skill of Stimulus Variation

Continued use of particular teacher behaviour may induce disinterest and inattention among learners on account of so many physiological and psychological factors. The variation or change in the teacher behaviour or stimulus variation helps to solve this problem. The skill of stimulus variation may be defined as a set of behaviours for bringing desirable change or variation in the stimuli used to secure and sustain pupils' attention towards classroom activities.

Components of the skill :

The skill of introducing change or variation in the attention capturing stimuli in a classroom comprises of the following component behaviours:

(i) **Movements:** Moving objects are capable of capturing more attention than the non- moving or static ones. The teacher should learn to make well-planned meaningful movements for securing and sustaining pupils' attention.

(ii) **Gestures:** Gestures are non-verbal cues, provided in the oral message given by the teacher for enhancing the value of this message. They are

usually made with the help of facial expressions and with the movements of eye, hand, head and body. Extending the hands in a typical shape to indicate how big or small an object is a typical example of this component.

(iii) Change in voice: This attention capturing behaviour of the teacher concerns with the art of bringing appropriate variation or change in the tone, pitch or speed of his/her voice.

(iv) Focusing: It refers to the behaviours that help in focusing pupils' attention on a particular object, word, idea, rule or generalization. Such behaviours may take the following forms:

❖ The use of verbal statements like, 'Look here in this   triangle', 'It is important to note that.' etc.

❖ The use of gestures

❖ The use of both verbal statements and gestures

(v) Change in interaction styles: The communication process going inside the classroom is termed as interaction. There are three main styles of this interaction as given below:

❖ Teacher-pupils or teacher-group interaction (Teacher conveys and gets response from the class or group as a whole.)

❖ Teacher-pupil interaction (Teacher communicates with an individual pupil.)

❖ Pupil-pupil interaction (Teacher involves many pupils in a dialogue without doing direct discussion.)

For bringing effectiveness in his teaching, a teacher should learn the art of bringing variation in interaction styles.

(vi) Pausing: Pausing refers to the behaviour related to introducing silence during talk. A pause of approximately three seconds is regarded as quite effective in securing and sustaining pupils' attention.

(vii) Aural-visual switching: This behaviour refers to the introduction of the change or variation in the use of medium, e.g. (i) from aural to visual (ii) from visual to aural or a combination of aural and visual.

(viii) Physical involvement of the students: This behaviour involves the introduction of change or variation in the types, forms and styles of the physical involvement of the pupils in the class. Sometimes, they may be engaged in dramatizing and other times in writing on the black board, participating in the demonstration or handling some instrument or aid material, etc.

Skill of Explaining

Explanation is nothing but a few interrelated appropriate statements. Thus the skill of explaining may be defined as the use of interrelated appropriate statements by the teacher for making the pupils understand the desired concept, phenomenon or principle.

Components of the Skill

The skill of explaining a concept or phenomenon consists' of two types of behaviour desirable and undesirable.

Desirable Behaviours:

(i)   **Using appropriate beginning and concluding statements:** Beginning statement is an opening statement announcing what is going to be explained by the teacher- it prepares the pupils mentally to receive the explanation. On the other hand, concluding statements are made after the end of the explanation in order to summarize or conclude the whole explanation.

(ii)   **Using explaining links:** Explaining links in the form of words and phrases are meant for establishing continuity in the statements used for the explanation. The link words are, therefore, hence, thus, consequently, since, because, so that, in spite of, as a result of, the function of, the purpose of, the cause of, due to, that is why, 'this is how, in order to, in order that, on the other hand, why, while.

(iii) **Covering essential points:** The explanation given for the understanding of a given concept or principle should be as complete as possible, it should aim for covering all the essential points.

(iv)   **Testing Pupils' understanding**: This involves asking of appropriate questions to ascertain whether the explanation has been understood or not.

Undesirable behaviours

(i)   **Using irrelevant statements:** This behaviour covers the statements not related to the concept or principle being explained, these statements, instead of helping the pupils to understand the concept, create confusion and distract the attention of the pupils.

(ii)   **Lacking continuity in statements:** This behaviour involves a missing link or break in the logical sequence of the interrelated statements by the teacher for explaining a concept.

(iii)   **Lacking fluency :** If a teacher lacks in fluency, he/she may be seen to show the following types of behaviours: (a) does not speak clearly (b) utters incomplete or half sentences (c) tries to reformulate or correct his/her statements in the midway of a sentence or a statement and (d) uses fumbling ideas or inappropriate words or statements.

(iv)   **Using inappropriate vocabulary, vague words and phrases :** This behaviour consists of the following undesirable aspects:-

a.   Use of vocabulary not known to the pupils or inappropriate to their age, grade and maturity level.

b.   Use of certain vague words and phrases {like, in fact, some what, you see, you know, I mean, actually, probably, perhaps, almost, a little, etc.) obstructing the understanding of an explanation.

Check your Progress

 Notes: a) Write your answer in the space given below

        b) Compare your answers with those given at the end of the unit

9. What is skill of explaining?

....

....

10. What is the major classification in the skill of explaining?

....

....

3.5.5. Skill of Illustrating With Examples

       This is the skill for timely use of examples for the purpose of making an idea, concept or principle lucid. A good illustrative example will also engage the pupil's attention.

Components of the skill :
1. Formulating simple examples - the examples are very familiar to the students and hence helpful for easy assimilation.
2. Formulating relevant examples - the examples relevant to the item being taught.
3. Formulating interesting examples - the examples that can arouse curiosity and interest.
4. The use of appropriate media for examples - the examples is verbal and non verbal media
5. Use of inductive and deductive approach for examples - Rules are formulated from specific examples and then students quotes examples for the rules.

Skill of Using Black Board

Black board is the most widely used of all visual aids. It is one of the quickest and easiest means of illustrating an important point. Matter once written on the black board can be erased easily and new materials added as the lesson progresses.

Components of the skill
1. Legibility of hand writing
2. Neatness in blackboard work.
3. Organisation of black board work.
4. Appropriateness of black board work.

Skill of Probing Questions

Questioning both by the teacher and the taught is the major device used in any teaching-learning situation. To make pupils think and discover facts teachers have to master the art of questioning. Pupils respond in a number of ways and styles such as no response, wrong response, partially correct response, incomplete response or correct response depending upon their own development level, nature of questions and teacher's behaviour. For the realization of the teaching objectives, a teacher has to learn the art of managing the responses of the pupils for eliciting desired response with the help of probing questions and some other desirable behaviours.

The term probing refers to going deep into the matter in hand: Consequently, the skill of probing questions may be defined as the art of response management comprising a set of behaviours or techniques for going deep into pupils responses with a view to elicit the desired responses.

Components of the skill:

The skill of probing questions consists of the following techniques:

(i) **Prompting:** In dramatics or role playing, the prompting as a technique is used by someone behind the curtain for helping the characters to speak the correct dialogue and demonstrate the desired behaviour before the audience. In the teaching-learning situation it refers to the cues or hints provided by the teacher through well framed questions to a pupil for arriving at the desired response from the undesired situations like no response, incorrect, partially correct or incomplete responses.

(ii) **Seeking further information:** In the case of partially correct or incomplete responses, the technique of seeking further information is applied. Thus the technique of seeking further information maybe defined as a technique of getting additional information from the responding pupil to bring his initial incomplete or partially correct response to the desired response level. The questions like, "What else can you say? How can you make it more clear?, Can you give some examples/evidence/ arguments?. Will you please elaborate your answer?' etc. are often used for seeking further information from pupils.

(iii) **Refocusing:** This technique is used in a correct response situation to strengthen the response given by the pupil. While refocusing, the teacher persuades the responding pupil either to relate his response with something already studied by him or to consider implications of his response in more complex and noble situations. The questions like, 'How does it differ from ....or similar to ?, Can you give an example to support your answer?, How is it applicable to the real life situations?' etc. are often involved in refocusing.

(iv) **Redirection:** This technique is generally applied in a 'no response' 01 incomplete response' situation. It requires putting or redirecting the same question to several pupils for eliciting desired response. This technique is used for open ended questions also where there could be more than one correct answer or opinion or point of view.

(v) **Increasing critical awareness:** This technique is used in a correct response situation to increase critical awareness in the pupil. A teacher is required to ask 'how' and 'why' of a completely correct or desired response from the responding pupil. The questions like, 'How can you justify it?. Why do you assume so?. How does it occur? ,What may be the reason behind it?' etc. are helpful in asking the responding pupil to justify his/her response for the purpose of increasing critical awareness in him/her.

STEPS AND PROCEDURE IN MICRO TEACHING

It involves certain steps which are given as under:

1. Orientation of the student-teachers to the micro teaching programme.

2. Discussing teaching skills.

3. Selection of a particular skill.

4. Presenting of a model demonstration lesson on a particular skill.

5. Observation of the model skill by student teachers and recording their observations on the observation schedule.

6. Critical appreciation of the model lesson by student teachers.

7. Creation of a micro teaching setting. The Indian Model of Micro Teaching developed by NCERT gives the following setting:

a) Number of student-teachers 5 -10

b) Type of pupils: real pupils

c) Type of supervisor: teacher educators and peers.

d) Duration of a micro-lesson; 6 minutes.

e) Duration of a micro-teaching cycle; 36 minutes.

8. Practicing the skill.

9. Providing feed back.

10. Replanning.

11. Reteaching.

12. Providing re-feedback.

13. Integration of teaching skills.

FEED BACK

In the microteaching approach, there is a provision for immediate and specific feedback to be provided to a trainee undergoing practice for attaining mastery over a teaching skill. The specific immediate feedback helps a trainee to modify his/her behaviour in the desired direction, and thus, facilitates acquisition

of the teaching skill. In order to provide effective feedback, teaching is observed and recorded systematically. In the western model, video was used to give feedback whereas in the Indian model it has been replaced by live observers and Teacher Behaviour Occurrence Schedule (TBOS). For each skill under practice a TBOS with corresponding component behaviours is used. For each component behaviour tallies are marked by peer groups and thereby feed back is provided for further enrichment. This feedback can be provided either by mechanical gadgets, college supervisor, Peer, Pupils constituting the micro class or any combination of the above four sources of feedback.

To use the TBOS effectively, you should first learn to recognize the components or various sub skills of a particular skill and then to record or code the different aspects of the skills as they occur. For each half minute interval in the lesson, the observers record which of the components have occurred by ticking in the appropriate boxes. The coding forms for some of the important skills are given below.

The Skill of Reinforcement

S.No.	Component	Time interval (each 30 sees)
	A. Desirable Behaviours	
1.	Use of Positive Verbal Reinforcers	
2.	Use of Positive Non-verbal Reinforcers	
3:	Use of Extra Verbal Reinforcers.	
	B. Undesirable Behaviours	
4.	Use of Negative Verbal Reinforcers	
5.	Use of Negative Non-verbal Reinforcers	
6.	Inappropriate Reinforcement or wrong use of	

The Skill of Stimulus Variation

S.No	Component	Time interval (each 30 sees)
1.	Teacher Movements	
2.	Teacher Gestures	
3.	Change in voice	
4.	Focusing	
5.	Change in the interaction styles	
6.	Pausing	
7.	Aural-visual switching	
8.	Physical involvement of the students	

Skill of Explaining

S.No.	Component	Time interval (each 30 sees)
	Desirable Behaviours	
1.	Using appropriate beginning & concluding statements	
2.	Using explaining links	
3.	Covering essential points	
4.	Testing Pupils' understanding	
	Undesirable behaviours	
5.	Using irrelevant statements	
6.	Lacking continuity in statements	
7.	Lacking fluency	
8.	Using inappropriate vocabulary, vague words and phrases	

Probing Questions

S.No.	Component	Time interval (each 30 sees)
1.	Prompting (P)	
2.	Seeking further information	
3.	Refocusing (RF)	
4.	Redirection (RD)	
5.	Increasing critical awareness (ICA)	

INTEGRATION OF TEACHING SKILLS

Link practice is the second step in micro teaching. Link practice combines all the skills developed through micro teaching. Class time is increased to 20 minutes from 5 minutes. The trainee has to plan 8 to 12 lesson each for 20 minutes duration. It is the term used to describe the type of teaching which acts as a bridge between micro teaching and teaching practice. It normally involves the integration of all the skills the teaching of half a class and the planning and teaching of 8 to 12 lessons in a particular topic. It is very important because there is a wide gap between the micro teaching and normal teaching practice. If the trainees are allowed to take the regular lass immediately after the micro teaching they are not able to integrate all the skills. In such a situation trainees are likely to forget all they have been taught and follow the available teaching model whether food or indifferent. Transition from one skill and one short lesson to teaching practice is abrupt. The food habits developed in micro teaching likely to

disappear if the trainee proceeds immediately to the regular class. Therefore, link practice is essential in between the micro teaching and the regular teaching practice programme.

Check your Progress

 Notes: a) Write your answer in the space given below
              b) Compare your answers with those given at the end of the unit

12. What is link practice? Is it necessary for a teacher trainee?

....

....

PROFESSIONAL DEVELOPMENT

For the professional growth of a teacher should undergo training programme. It leads to the overall development of the teacher making him a professional in all aspects. Training programme can be oragnised in two ways to enhance the capabilities of the teacher namely:

PRE SERVICE

Pre service training refers to B.Ed programs conducted by the colleges of teacher education.

Objectives of pre service training

- Objectives of teaching commerce.
- Up to date knowledge of commerce.
- Suitable methods.
- Use appropriateaids and materials.
- Modern trends in instructional methodology.
- Co-curricular activities.

IN SERVICE

In service programme are provided once the teachers enter into profession of teaching.

NEED OF IN SERVICE EDUCATION

The need and importance of the in service programmes can be summed up as follow.

1. **Education is a life long process:** There is knowledge explosion not only in the field of science and technology but in other areas too, hence, every

person should continue his/her education till the end of ones life. The teacher should continuously pursue learning. He must remain a student throughout his life. This is true in the case of a teacher of commerce also, as it is a fast growing discipline.

2. **Need of continuous training:** In the absence of further training, stagnation will takes place. The teacher, who does not refresh his knowledge and skills, is like a stagnant pool.

3. **Need of Professional Growth:** In service training leads to the professional growth of the teacher. He needs to renovate his experience, refresh his knowledge, benefits by the experience of others and acquire new information.

4. **To bring dynamism in teaching:** Education is something dynamic and a teacher can remain integral part of education only if he keeps pace with the dynamism of education in general and science of pedagogy in particular.

5. **Up gradation of knowledge in the teaching subjects**: In service programme is needed to enable the teachers to update their knowledge of their subjects of specialization.

6. **To exchange views:** Through in service programmes teachers are encouraged to discuss their problems with others. They are encouraged to share their experiences and difficulties and seek remedies from colleagues and experts. Therefore in service programmes provide a good opportunity to the teachers to grasp new ideas and exchange personal experiences for the benefit of all.

7. **To develop critical thinking**: Through in service programmes teachers can contribute effectively to reorganization of educational objectives, revision of curricula, use of new pedagogical strategies and techniques, etc.,

8. **To create a sense of belongingness:** In service programme provides opportunities to the teachers to come into contact with one another. This creates in them a feeling of belonging to the profession.

9. **For educational reconstruction:** India is advancing towards educational reconstruction which can be made possible only with motivated and active involvement of teachers. In service programme can help in the respect.

DIFFERENT FORMS OF IN SERVICE PROGRAMMES

❖ Professional refresher course.

Refresher course is conducted to enable the teachers to keep pace with the latest development in their subject as well as in the theory and practice of

education. Refresher course is an important source of re orientation of teachers. Professional and academic efficiency of the teachers who attend such refresher courses get enhanced.

❖ Professional orientation course.

These are professional courses are organized in summer vacations by NCERT. It makes them familiar with mental health of the student. It makes them familiar with construction of objective type test and evaluation techniques.

❖ Extension lectures.

It means that teaching or instructional work carried out by college ,university or other educational establishment for extending the normal range of a subject or allowing for the pursuit of related interest.

❖ Professional seminars.

A programme that generates collective thinking on various problems of education by experts, educationists and teachers may be considered as an educational seminar. Seminars provide friendly and informal atmosphere to discuss and exchange ideas. Seminars can be organized on any complex problem of education

❖ Professional workshop

The approach in a workshop is more practical than that of a seminar because in a workshop all the participants work actively and produce some concrete output. A workshop can be conducted to think over practical oriented problems of education such as curriculum construction, development of instructional materials, etc., In a workshop ample time is given for every individual to study as well as to work. Developing model plans of pedagogic analysis of selected units in Commerce, development of question banks for the subject, etc., can be suggested as themes of workshops for commerce teachers.

❖ Professional conference

Conference of teachers, experts, educators and educationists can be organized for broad discussion of educational subjects like revision of school curriculum, selection of text book, adoption of new methods of teaching and evaluation, guidance of gifted children, problems of handicapped children, etc., These conferences can be conducted at district, state or national levels.

❖ Professional writing.

Through research papers in journals of repute he can contribute his research findings . These way commerce teachers can help other commerce teacher who will benefit from his findings.

❖ Professional study group.

Teachers of different subjects can form study groups. The members of the study group meet periodically to discuss problems regarding their subject areas and workout new teaching techniques. The topic chosen for discussion should be concerned with the practical needs and personal experience of the members of the study group. The study groups can play a significant role in the formation of educational plans.

❖ Professional indirect training .

- Studying the published magazines and journal by NCERT.
- To listen radio and to watch TV.
- To participate in commercial organistion.
- Visit the bank market and business centre's etc.

Check your progress

Notes: a) Write your answer in the space given below

   b) Compare your answers with those given at the end of the unit

13. What is the academic qualification required for the commerce and accountancy teacher?

   ....

   ....

14. Why professional training is necessary for the commerce teacher?

   ....

   ....

QUALITIES OF COMMERCE TEACHER

Following are the important qualities for a successful commerce and accountancy teacher.

❖ *Scholarship:*

Scholarship in Commerce and Accountancy is the minimum requirement to start with. This means a sound knowledge of the subject matter. To day, the concept of teaching is fastly changing. Now it is more child centered than subject centered. That is, we teach pupils, with subject as medium in order to obtain the desirable changes in pupils; the teacher must be well equipped in the subject that will aid to produce those changes. He must have a through knowledge of Commerce and Accountancy at the higher secondary level. Most of the teachers might have specialized only in special fields such as income tax law and practice

and transport and co operation in their B.Com and M.Com courses. They may not have a broad outline or idea of commerce and accountancy as it is required at higher secondary school level. Therefore they should enrich the knowledge in addition to what they had already acquired by going through the subject matter in commerce and accountancy at the higher secondary school level.

❖ *Professional training:*

The second essential requirement to become a successful commerce teacher is professional training. Teaching is a profession and the teacher must be perennial student. The commerce teacher must have up to date knowledge and through understanding of the present banking system, commerce, industry etc., since he has to teach all these ever changing aspects to the students. This cannot be neglected if one wants to be a successful teacher. There are various ways by which a teacher can equip himself in service. Some of the important ways are;

- Reading professional journals like, ICA, ICWA, ICS, Business journals, SEBI, etc.,
- Getting further education through distance education/ Open University course and evening/part time college course.
- Attending orientation and refresher courses through any institutions,
- Updating experiences through using electronic media, computer related coursers, field travel etc.,

Reading is a means of self improvement for the teacher. Fast and vast reading helps him to find out the best books and magazines in his field. Number of periodicals and magazines are available for his improvement and some of them are , The Indian Economic Journal, Co operation, Management Accounting, Indian Journal of Marketing, Finance and Development, RBI Bulletin, Journal of Indian institute of Bankers, etc.,

❖ *Personality:*

His personality is the third essential requirement for the commerce teacher to be successful in his profession. It is very difficult to list comprehensively and analyze all the qualities which enrich his personality. For the purpose of convenience we can divide all the elements, related to personality into three division namely physical aspects, passive virtues and executive abilities.

❖ **Physical aspects:**

It is very important because it creates an impression and respect. It deals with those aspects which give us our first impression of individuals. Apart from other qualities, the important are,

1. ***Personal appearance***: It includes dress, facial expressions, mannerisms and personal cleanliness.
2. ***Recognition of the amenities of life***: It includes good manners, observances of social form courtesy and refinement.
3. ***Voice***: It is very important because of its effect on children is more and it is related to successful teaching. If one has a shrill, monotonous voice it is his duty to try correct as far as possible.
4. ***Good language***: It includes pronunciation, enunciation and grammar. Fluency of language makes the teaching very effective and interesting.
5. ***Health***: It affects many of the qualities and traits of teacher. Good health is conductive to the cheerful disposition and to the intelligent optimism.

❖ **Passive Virtues:**
The passive virtues include those qualities which make a teacher a power in the lives of his pupils. The most important in this list are,
a) ***Friendliness:*** This implies having goodwill toward one's pupils and a deep interest in their welfare.
b) ***Sympathy and Understanding:*** This means that one must realize the feelings of pupils and must appreciate and understand their problems and difficulties.
c) ***Sincerity:*** It makes the teacher to dedicate his life to the profession. He must be loyal and sincere in his work.
d) ***Tact:*** The teacher must do the right thing at the right time under the most trying circumstances.
e) ***Fairness:*** The teacher must behave with all students fairly without any distinctions or favoritism.
f) ***Self Control:*** The teacher must control his emotional feeling. This means keeping a level head under all circumstances.
g) ***Optimism;*** The teacher must have optimistic approach. There is no place for pessimist in the training of children.
h) ***Enthusiasm:*** The teacher must be enthusiastic about life about people and about his subject.
i) ***Patience:*** Teaching is a trying profession and calls for endurance and perseverance. It requires forbearance towards the weakness and faults of others.

❖ **Executive Abilities:**
Executive abilities are those abilities which are found in leaders. They are absolutely essential for a teacher because he is a leader for his students.

A. ***Self Confidence and Self Reliance***: The teacher must have a confidence in himself and his ability to carry out the objectives of education which he has set for his pupils.

B. ***Initiative:*** He must take initiative in all activities.   He must lead in all fields because teacher is primarily a leader not a follower.

C. ***Adaptability and Resourcefulness***: The teacher must be able to adopt and carry out his plan in any circumstance. He must have the ability to meet any situation to carry out his plan.

D. ***Organizing Ability***: The teacher must have the organizing ability. It is very easy to plan but putting the plan into workable condition is very difficult.

E. ***Directive Ability***: Planning and organizing alone is not enough to get success. He must have the directing ability. He must be able to give direction to others.

F. ***Industry:*** The teacher must work hard just like leaders. Hard work is a planned way is very important quality of the teacher.

❖ **Other Qualities:**

In addition to the above qualities mentioned, the commerce teacher should possess the following additional qualities;

1. **Good Character**.

He should be a responsible teacher and must have a sense of duty. His good conduct and character will have impact on the character of children, as the human mind is always imitative. Teachers are the heroworships of their students. No teacher can inculcate discipline and good character among students if he does not deserve this himself. He should cite examples of his personal integrity, moral character and discipline.

2. **Aptitude in the 'teaching profession' :**

If a person, joins a teaching profession after having failed in getting suitable employment has no real interest for the teaching profession, and then it is bound to have an adverse effect on the mind of students. Due to insufficient development of the topic on the part of the teacher, students may think that this subject is a dry and difficult one. The Mudaliar commission stated, "Teachers must develop a new orientation towards their work. They should take up on their work as a great social and intellectual adventure." The Commerce and accountancy teacher's relations with the students should be polite, and friendly. He should show sympathy to his students.

3.   **Good natured, happy and well adjusted.**

4.   **Thorough in his subject:**
The Commerce and accountancy teacher should be thoroughly grounded in theory and practice of his subject matter and possessed of the knowledge and skills necessary for teaching theory and practice in an integrated manner.

5.   **Use a variety of effective teaching learning procedures**.

6.   **Trained by using various techniques:**
The Commerce and accountancy teacher should be trained in the use of variety of instructional techniques such as committee of work: question and answer and demonstration, project and discussion etc., He should be competent to develop, construct and use a wide variety of teaching aids. He should have a good understanding of the psychological principle common to all learning, as well as of the psychology of skill building, basic factors in skill development and learning difficulties peculiar to commerce courses.

7.   **Able to develop and use instructional materials:**
The teacher of commerce and accountancy should be able to use different audio- visual materials to make his instruction more effective and meaningful. He should be fully conversant with the ways in which students are prepared for receiving benefits of the teaching aids to the maximum extent. He should be able to prepare and use simple and inexpensive charts and models to make this instruction more effective.

8.   **Organize subject matter for instructional purposes.**

9.   **Appreciate the value of learning** about the business occupation in the area served by the school. He should also be able to play ways of, enriching syllabi, adopting programmes to community, providing necessary background to those who need and wish to continue higher education, identifying sources of supplementary teaching materials, preparing good lesson plans needed to develop knowledge, understanding skill and attitude for a wide range to student's abilities.

10.   **Use variety of methods to evaluate pupil's progress.**
The commerce and accountancy teacher should understand the values and limitations of various methods of evaluating students' progress. This should

include, understanding values and limitations of various types of test, knowing how to prepare, administer, improve and refine teacher made tests, knowing how to utilize rest result as a basis for remedial teaching, understanding and testing the skill development concepts and using tests and rating scales to evaluate skill performance.

11. Use appropriate equipment and machines.

The Commerce and accountancy teacher should be able to handle different types of office machines effectively; particularly those machines on which instruction is give in the school. Apart from that, the teacher should also be familiar with reference books general and commercial educational periodicals.

12. Conducting carrier guidance programms:

The commerce and accountancy teacher should be able to discuss the vocational implications of the commerce programmes and interpret the job situations to students and parents: to prepare information materials on the objectives of the commerce programmes: to contribute to the cumulative records maintained by the school: and to interpret the role of the class room teacher in the placement programme of the school.

13. Organize and supervise the co curricular activities:

The Commerce and accountancy teacher should recognize the need, importance and value of co-curricular activities to the total educational programme of the school and have skill in organizing and managing activities, such as commerce clubs, field trips, co operative stores, surveys of former students, school publications, exhibitions economic surveys, etc.,

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Check your Progress

Notes: a) Write your answer in the space given below

b) Compare your answers with those given at the end of the unit

15. List out the executive abilities of a commerce and accountancy teacher.

....

....

16. What is the specific personality qualities required for a teacher?

....

....

17. Point out the specific other qualities required for the commerce and accountancy teacher.

....

....

RESPONSIBILITY OF COMMERCE TEACHER

The following are the responsibilities of the commerce teacher:

- Character development.
- Effective teaching and learning.
- Adjusting individual difference.
- Classroom management.
- Evaluation of pupil performance.
- Curriculum development and implementation.
- Developing good family and community relationships.
- Total school effectiveness.
- Professional growth and ethics**.**

PROBLEMS FACED BY THE COMMERCE TEACHER

- ❖ High student low teacher ratio.
- ❖ Lack of proper infrastructure: - it is sometimes remarked that many colleges are virtually academic slums.
- ❖ Inadequate teaching aids like commerce lab, CTV-Video films.
- ❖ Untrained and ill-equipped teachers.
- ❖ It is more content oriented rather than skill and practice oriented.
- ❖ Lack of practical exposure both to the teacher and teaching methods
- ❖ The content (syllabus) is not up-to-date with latest scenario, availability of E- finance, etc. needs keeping pace with the changing business environment with latest technology to every students.
- ❖ Commerce teacher is a jack of all trades: -perhaps he is the only person who is expected to teach all the subjects. Like commerce, banking, entrepreneurship, business management or sometime economics as compulsory subject even if he or she may be interested in accountancy.

SUMMARY

We have discussed the history and development of micro-teaching, especially the definitions by different persons, meaning and steps in micro teaching and also the advantages and limitations of micro teaching are discussed. Any teacher required practice that can be acquired through practice. This lesson is very helpful for the teacher trainees to taught different types of skills with sub skills.

It should be borne in mind that howsoever excellent the innovation of micro teaching may be, it should be adopted and practised according to the needs

and conditions of the Indian teacher-education system. The only problem in developing countries, today, is to train team of teachers, educators and supervisors who will be able to introduce this innovation in their colleges and school systems.

KEY TERMS
- ❖ Micro teaching
- ❖ Micro teaching cycle
- ❖ Important skills
- ❖ Steps And Procedure In Micro Teaching
- ❖ Professional growth of teacher
- ❖ Pre service and in service programme
- ❖ Qualities required for a good commerce teacher
- ❖ Responsibilities of the commerce teacher
- ❖ Problems faced by the commerce teachers.

ANSWERS TO 'CHECK YOUR PROGRESS'
1. Teaching skill
2. Stanford University.
3. 5 to 10 minutes.
4. According to Passi the micro teaching is a training technique which requires pupil teacher to teach a single concept using specified teaching skills to a small number of pupils in a short duration of time.
5. Orientation of the student-teachers, discussing teaching skills, selection of a particular skill, presenting of a model demonstration lesson, observation of the model skill by student teachers and recording their observations on the observation schedule, critical appreciation of the model lesson by student teachers, creation of a micro teaching setting, practicing the skill, providing feed back., Re planning, Re teaching, providing re-feedback and integration of teaching skills.
6. This duration of the micro teaching cycle is, teaching session 6 minutes, Feed-back session 6 minutes, re plan session 12 minutes, Re teaching session 6 minutes, re feedback session6 minutes = 36 minutes.
7. The components of the skill of reinforcement are two major types may be listed as below:
A. Desirable Behaviours includes, Use of Positive Verbal Reinforces, Useof Positive Nonverbal Reinforces and Use of Extra Verbal Reinforces.
B. Undesirable Behaviours are, Use of Negative Verbal Reinforces, Use of Negative Non-verbal Reinforces and Inappropriate or wrong use of Reinforces.

8. (i) Movements (ii) Gestures (iii) Change in voice (iv) Focusing (v) Change in the interaction styles (vi) Pausing (vii) Aural-visual switching and (viii) Physical involvement of the students.

9. The skill of explaining may be defined as the use of interrelated appropriate statements by the teacher for making the pupils understand the desired concept, phenomenon or principle.

10. The skill of explaining consists of two types of behaviour, viz., desirable and undesirable.

11. The skill of probing questions consists of the following techniques:
   (i) Prompting. (ii) Seeking further information (iii) Refocusing (iv) Redirection and (vi) Increasing critical awareness.

12. Link practice is the second step in micro teaching. Link practice combines all the skills developed through micro teaching. It is very important because there is a wide gap between the micro teaching and normal teaching practice.

   Yes, If the trainees are allowed to take the regular class immediately after the micro teaching they are not able to integrate all the skills. So the link practice helps the teacher trainee to assimilate some of the skills to perform well.

13. M.Com., B.Ed., is the basic academic and professional qualification required for a commerce and accountancy teacher.

14. The professional training is required to become a successful commerce teacher. Reading professional journals like, ICA, ICWA, ICS, Business journals, SEBI, etc., Attending orientation and refresher courses through any institutions. Reading is a means of self improvement and professional growth of a teacher. Fast and vast reading helps him to find out the best books and magazines in his field. This cannot be neglected if one wants to be a successful teacher.

15. The Executive abilities are, Self Confidence and Self Reliance, Initiative:, Adaptability and Resourcefulness, Organizing Ability, Directive Ability and, Industry.

16. The personality into three division namely physical aspects, passive virtues and executive abilities.

17. The commerce teacher should possess the qualities like, a good character, interest and aptitude in the 'teaching profession', good natured, happy and well adjusted, thorough in his subject, to continue and use a variety of effective teaching learning procedures, trained by using various techniques, develop and use instructional materials, to organize subject matter for instructional purposes, to use variety of methods to evaluate

pupil's progress, select and use appropriate equipment and machines, to function effectively in guidance programme of the school, and able to supervise the co curricular activities.

UNIT END EXERCISES
1. Discuss the nature, characteristics and scope of micro-teaching.
2. Explain the meaning and steps in micro- teaching.
3. Illustrate the micro teaching cycle.
4. State the advantages and disadvantages of micro-teaching.
5. Explain any three micro teaching skills with suitable examples from commerce.
6. Explain the academic and professional qualification required for a commerce and accountancy teacher.
7. What are the responsibilities of a commerce teacher?
8. State the need and importance of in service training for commerce and accountancy teacher.

LEARNING OUTCOMES
After end of the unit, one should be able to,
✓ Explain the history and development of micro teaching.
✓ Study the definition and meaning of micro teaching.
✓ List out the various steps in preparing micro teaching skill.
✓ State the advantages and disadvantages of micro teaching.
✓ List out the various skills which are essential for effective teaching.
✓ State the components of various sub skills.
✓ Explain the meaning of link practice.
✓ Write the lesson scripts for each skill.
✓ Explain the qualities and qualification required for a commerce teacher.
✓ Study the duties and responsibilities of a commerce teacher.

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Unit – IV	CURRICULUM OF COMMERCE

Structure

- Introduction
- Learning Objectives
- Curriculum
  - o Meaning
  - o Importance
- Principles in construction
- Curriculum organization
  - o XI and XII standard commerce and accountancy syllabus
- Syllabus of commerce and accountancy in state and CBSC board
- Academic and vocational curriculum
- Summary
- Key Terms
- Answers to 'Check Your Progress'
- Unit end Exercises
- Learning Oucomes
- Suggested Reading

INTRODUCTION

Before the Secondary Education Commission Report, the course content failed to keep pace with the changes in the social, political, economic, and industrial conditions. It could not keep pace with the latest developments in Education. Theory and practice courses are bookish and theoretical, they encouraged cramming. The instructions become lifeless and monotonous. This has been reflected in the observations of the Mudaliar Commission. This unit also focused on the views of the Commission discussed elaborately about the meaning, definition and functions of the curriculum construction, principles of the curriculum construction and procedure for curriculum construction in commerce.

LEARNING OBJECTIVES

This unit is meant to help you to learn the meaning, definition, nature and the principles of commerce curriculum construction.

After going through this unit, you should be able to:

- define the term curriculum;
- describes the principles of curriculum construction;
- knows the nature and scope of inclusion of commerce in the curriculum
- status of commerce curriculum construction in our country;

CURRICULUM

The Secondary Education Commission 1952-53 observes "It must be clearly understood that according to modern educational thought, curriculum does not mean only the academic subjects traditionally taught in the school but it includes the totality of experiences that a pupil receives through the manifold activities that go in the school — in the classroom, library, laboratory, workshop, playground and in the numerous informal contracts between teachers and pupils. In this case, the whole life of the school becomes the curriculum which can touch the life of the students at all points and help in the evolution of balanced personality." Similarly, the Education Commission 1964-66 observed, "We conceive of the school curriculum as the totality of learning experience that the school provides for the pupils through all the manifold activities in the school or outside that are carried under its supervision. From this point of view, the distinction between curricular and extra-curricular work ceases to exist, and a school camp and games and sports are curricular rather than co-curricular activities." In the light of above statements Commerce curriculum includes the academic subject- matter of topics and experiences provided through debates, discussions, case studies, surveys, community resources and visits also.

MEANING

The term curriculum is derived from the Latin word *"currere"* which means *path.* In this sense curriculum is the path through which the student has to go forward in order to reach the goal envisaged by education. Usually the term curriculum is understood to mean a group of subjects prescribed for study in a particular course. But curriculum is not confined to this narrow concept. The curriculum should in no way be considered as synonymous with courses of study. The courses of study list much of the content to be learnt and indicate some of the major activities but these form only part of the curriculum. Curriculum should be considered as a broad-based term encompassing every aspect concerning the study of the course. It is in now considered on the totality of experiences to which a pupil is exposed within the boundaries of the school and outside.

IMPORTANCE

Every successful concept and project in life requires a proper framework and planning. This relates to all processes, including education. Whenever we embark on any new plan or procedure, we need to make sure that we have all the plans drawn up. What is on offer, what are the resources that we have, what are the steps, which we need to take and what are the goals that we need to achieve are some elements that need to be looked upon. A similar set of constraints when applied to education in schools and colleges gives birth to curriculum. A curriculum is a set of courses, including their content, offered at a school or university. The curriculum often contains a detailed list of subjects and the elements of teaching them.

PRINCIPLES IN CONSTRUCTION

Principles of Curriculum Construction

Educationists have laid down certain general principles for developing curriculum. Some of these basic principles are indicated below:

1. **The Principle of Child-Centredness***:* Curriculum should be child-centred. It must be based on the present needs, requirements and circumstances of the child. The child needs more experience than instruction. If we wish our pupils to reveal initiative, co-operation and social responsibility, we should develop these qualities in them by means of meaningful activities appropriate to their stage of psychological development. True education can be acquired only through activity and experience. Curriculum meant for any particular stage, therefore, should be framed in accordance with the child's developmental characteristics and needs at that stage.

2. **The Principle of Community-Centredness***:* Besides treating each child as an individual, we should also view him as a member of the community to which he *belongs. In fact, the* learner is going to be an active member of the community as a citizen. It is, therefore, quite desirable that his needs and desires must harmonise with the needs and desires of those amongst whom he has to live. The child cannot be educated in a vacuum. He is to be educated in a school established by the society and by interacting with other members of the society. The goal formulated by the school which depends upon the purpose of the society determines the content of education that is the curriculum. But the society is not static. It is dynamic and continuously changing. Living in this ever changing modern world is not as simple as it used to be in the past. Any curriculum has to prepare the learners to face this challenge with efficiency.

3. **The Principle** *of Activity-Centredness:* Action is the sign of life. Man is an active being. Therefore, the curriculum should provide for a variety of activities both physical and mental in which children are naturally interested. The activity must be connected with the child's desires and needs as well as societal requirements. Emphasis should be given to 'learning by doing' through the activities of hand, head and heart. These may be play activities at the pre-primary stage, project activities at the primary stage and constructive and creative activities at the secondary stage. At the same time, it has to be remembered that physical activities should lead to mental reflections.

4. *The Principle of Integration:* By integration we do not merely mean integration of subjects. What is required is the integration of the child's needs on the one hand and the needs of the democratic society on the other hand. In other words, integration warrants that activities carried on in a school and the experiences thus gained should not be treated in watertight compartments. Instead, these should be so designed as to lead the child to establish a functional unity with the environment. Such a curriculum will safeguard the general and liberal aspects of education.

5. *Forward looking Principle:* The aim of education is to prepare the child for an effective adult life. Therefore, the curriculum should reflect an insight into the future life of the child. It should enable the child to prepare for a worthy life. It should prepare him for a vocation. It should equip him with the calibre to meet the challenges of life in future.

6. *Conservative Principle:* The curriculum should preserve and transmit the traditions and culture of human race. It should embrace such subjects, topics or activities by which students should cultivate a sense of respect for their traditions and culture. Selection of such material should, however, be made with great care, according to the mental development of children.

7. **Renewal Principle:** While conserving and transmitting the cultural heritage, education should cater to renewal of the culture to suit the requirements of changing time. Hence curriculum should be so constructed as to facilitate renewal of the society.

8. *Creative Principle:* God has created the universe and men have created other *things in it. By nature man is creative. Therefore,* education *should* be so *moulded* as to enable to develop one's creativity. The curriculum should consist such subjects that would enable children to exercise their creative powers which in turn will enable them to modify their environment according to the needs of time.

9. *Motivation Principle:* The curriculum should be tailored to suit the needs and interests of the pupils. It must be goal directed. It should thus motivate the pupils to actively participate in the learning process with an innate desire that is with intrinsic motivation.

10. *Maturity Principle:* The curriculum should be suited to the mental and physical maturity of the pupil.

11. ***The Principle of Preparation for life:*** The school curriculum should include such elements that would prepare children for their future life. That is, they should be able to earn their livelihood sufficiently and adjust themselves with the society efficiently. It should equip the child with the calibre to meet the challenges of life.

12. ***The Principle of Elasticity and Flexibility:*** Since the needs of the individual and the society go on changing, a rigid and static curriculum cannot meet the requirements of the child or of the society. Moreover, experiences to be presented have to be modified to suit the environment, societal conditions, learning atmosphere, etc. Also, pupils differ in intelligence, tastes and skills. The curriculum by its elasticity can cater to all such requirements posed by environmental, cultural and individual differences.

13. **The Principle of Comprehensiveness:** The curriculum must be comprehensive enough to confirm to the needs of various individuals or communities. It must be broad-based to include a wide variety of subjects suited to the needs of various types of pupils and societal needs. Comprehensiveness has to be reflected also in it's potential to cater to the comprehensive or total development of an individual.

14. ***The Principle of Balance:*** Curriculum should maintain proper balance between direct and indirect experience, liberal and professional education, individual and social aims, compulsory and optional subjects, etc.

15. **The Principle *of Utility:*** Curriculum should be of practical use to the pupil, and hence should maintain vocational and technical bias. Due emphasis should be given to work experience.

In short, a curriculum should be well-balanced, properly-graded, fairly broad-based and appropriately designed for meeting the needs of the child on the one hand and those of the society, on the other.

CURRICULUM ORGANIZATION

The selection of the subject matter is not sufficient to make the teaching of commerce effective and objective based but it should be well organized also. For this the following methods of organizing the subject matter should be adopted.

- Unit method
- Topical method
- Concentric method
- Spiral method

Once the learning experiences have been selected the next step is sequencing or placement of learning experience should be done in a manner that leads to a gradual progress from simple to complex. Concrete to abstract and from normal to abnormal, etc. keeping these maxims in mind,

- organization and sequencing of theoretical experiences
- organization and sequencing of supervised and guided experiences in arrangement of students rotation in hospital and community practical.
- organization and sequencing of teaching learning methods.

Learning experiences need to be integrated so that student see interrelation in various subjects that leads to lifelong learning or holistic learning.

4.5.1 XI AND XII STANDARD COMMERCE AND ACCOUNTANCY SYLLABUS

Commerce discipline is introduced only at higher secondary classes to the students' community. Commerce as a discipline has been included in the curriculum on account of its cultural, disciplinary, practical and social values. It also develops certain competencies which are found to be great value in our day to day life.

COMMERCE- (XI STANDARD)

Unit & Number	Expected Learning Outcomes	Content	No. Of Periods
1.Introduction	- Understands the meaning of barter system. - Knows about the term ' commerce' and definition of commerce. - Distinguish trade from Industry and business. - Analyses the different types of hindrances of Commerce/Trade.	Meaning and Batter system Definition of CommerceTrade - Industry - business 1.4.Hindrance of Trade 1.5. Branches of Commerce	10
2.Internal trade small scale retail organisation	- Knows about the meaning of home trade with examples. - Analyses the meaning of wholesaler trade and retail trade and the services of wholesaler and retailer. - Knows the various types of small scale retail organisation will diagram and chart	Home trade Wholesale and retail trade Middle men Types of small retail organisation Street stalls Second hand good dealers General Stores Specialty shops	20
3. Internal trade Large Scale retail organisation	- Understands the meaning and definition of Departmental Stores. - Understands the meaning and definition of multiple shops and its merits and demerits. - Knows about the differences of Hire Purchase and Instalment system. - Understands the meaning of Teleshopping, Web marketing, and ecommerce.	Types of Large Scale retail organisation Departmental Stores -Merits - Demerits Multiple shops - meaning - Definition - Hire Purchase and Instalment system Recent developments - Tele shopping Web - marketing e-commerce	20

4.International Trade	- Understands the meaning of International Trade and its necessity. - Understands the advantages and disadvantages of international trade. - Distinguish the term internal trade and international trade. - Knows the meaning of Import, Export & entrepot trade. - Understands the services of various Agents involved in Import and export trade. - Knows the meaning of globalisation and multinational companies	International Trade- Meaning-Need. Merits and Demerits Differences between Home Trade and Foreign Trade Types Foreign Trade-Import, Export, entrepot trade Intermediaries involved in Import trade. 1. Indent House 2. Clearing Agents Export Trade 1.Commision Agents 2.Whole export merchant 4.6 Brief explanation of globalisation-multinational Company.	20
5.Transport	- Understands the meaning of Transport. - Analyses the importance of transport - Knows the various functions in detail - Explains the various types of Transport - Understands the meaning of liners, Tramps, Container. Ship, tankers, bulk carrier. - Explain the meaning of Air transport and its merits.	5.1Meaning of Transport 5.2.Importance of Transport Functions of Transport Types of Transport Land-road transport-tramways railways. Inland water ways Ocean transport - liners - tramps - containership-tankers-bulk carriers. Air transport - merits Documents involved in Transport - waybill - railway receipt Containarisation - private & Public carrier.	15
6.Warehousing	- Understands the meaning of warehousing and its importance. - Knows the functions of warehousing in detail. - Distinguishes the term private, public and bonded warehouse. - Knows the documents involved in warehouse and the meaning of each document	Need of warehousing. Meaning of warehouse and warehousing Functions of warehousing Kinds of warehouses a) Private b) Public c) Bonded advantages 6.5 Warehousing - documents -warehouse	10

		warrant -Dock warrant - Delivery order - warehouse keepers receipt - Dock receipt. 6.6 Warehousing in India and in Tamil Nadu.	
7. Banking	- Understands the meaning of Bank. - Understands the different kinds of bank. - Appreciates the functions of commercial banks. - Knows the meaning of co-operative banks. - Describes the functions of Reserve Bank of India - Knows the importance of Internet Banking &EFT. - Understands the definition of cheque understands the special features of cheque. - Knows the meaning MICR cheque. - Knows the meaning and different types of crossing - Analyses the reason for dishonor of cheque	Need for banking Meaning of banks Kinds of banks a) Central bank b) Commercial banks Functions of commercial banks Co-operative banks Indigenous bankers 7.7Reserve bank of India functions 7.8Brief introduction about Internet banking and EFT (Electronic Funds Transfer) 7.9Cheque-Definition 7.10Features MICR cheque Crossing- Kinds 7.13Endorsement- meaning 7.14Kindsof endorsement 7.15 Dishonour of cheque - reasons	20

8. Insurance	- Explain the meaning of Insurance. - Analyses its importances. - Distinguishes the terms of insurance and assurance. - Explain in detail the principles of insurance - Analyses the various types of insurance and its importance and the meaning of surrender value and nomination - Discuss the role of privatization of insurance, need and its benefits	Necessity for Insurance Meaning of Insurance Insurance -assurance differences 8.4Principlesof insurance Forms of insurance Fire insurance Life insurance Kinds of life policies Marine insurance Burglary insurance Mediclaim policy 8.6 Surrender value and nomination 8.7 Privatation of insurance meaning 8.7.1 Need and benefits	20
9. Advertising	- Understands the meaning of advertising and the merits and demerits. - Discuss the various media of advertising and its importance. - Knows the meaning of web advertising and its role.	9.1Meaningof advertising 9.2Objectives of advertising 9.3Merits and demerits 9.4Media of advertising 9.4.1Press, newspaper, magazines, journals, radio & T.V. 9.4.2Outdoor advertising 9.4.2.1Film, Window display 9.5Web advertising - or Internet advertising.	15
10. Salesman ship and consumerism	- Understands the meaning of salesmanship and the importances of salesmanship - Understands the meaning of consumerism and the consumer exploitation with examples - Understands the rights and duties of consumer and the procedure for making complaint. - Discuss the various types of consumer council and the role of Govt. in protecting consumers interest	10.1 Meaning of salesmanship 10.2 Definition 10.3 Importances of salesmanship Consumerism - meaning Consumers exploitation-with examples 10.6 Procedure for making complaint 10.7Rights and duties a) Mahatma Gandhi b) Kennedy 10.8Consumer protection Councils-National State District. 10.9 Role of Govt. in protecting the interest of Consumer	20

The syllabus for Accountancy had been well framed with necessary basic accountancy essentials, precisely referring to the standards of the CBSC, ICSE and other State Boards. Since, the basic foundation for the subject must be well laid; the committee suggest that the current syllabus is compatible for the Higher Secondary standards. Yet considering the latest development in the field, certain modifications and additions were made in the exiting syllabus, to make it more informative and practical oriented.

ACCOUNTANCY- (XI STANDARD)

Unit & Number	Expected Learning Outcomes	Content	No. Of Periods
1. Introduction to Accounting	- Understand the meaning of Book- Keeping, Accounting and Accountancy - Understand the relationships between Book-Keeping, accountancy and Accounting - Identifies the users of Accounting Information - Understand the advantages and Braches of Accounting - Understand the various terms used in Accounting - Understand the classification of Accounts	Introduction Book - Keeping Meaning of Accounting Accountancy- meaning Relationship between Accountancy, Accounting and Book - Keeping. Accounting Cycle Distinction between Book- Keeping and Accounting Users for Accounting information and their need Advantages of	14

	- To know the rules of Accounting	Accounting Branches of Accounting Basic Accounting Terms Transactions Proprietor Capital Assets Liabilities Drawings Purchase Purchase Return Sales Sales Return Expenses 1.11.12. Income/Revenue Debtors Creditors Voucher Invoice Receipts Account Stock Discount Classification of Accounts Personal Account Real Account Nominal Account 1.13. Golden Rules of Accounting	
2. Accounting Principles and Accounting Standards	- Know the Basic Assumptions of concepts and principles of Accounting	Introduction General Accepted Accounting Principles Accounting Entity Assumption Accounting period Assumption	7

			Money measurement Assumption Going concern Assumption Full disclosure concept Historical cost concept Revenue realization concept Matching concept Dual Aspect Concept Objective Evidence Concept Cost Benefit Principles Materiality principles Consistency Principle Prudence Principle	
3. Journal	-	Understand the various steps in Journalizing	Introduction Double Entry System Advantages of Double Entry System Source Documents Books of Original Entry Journal Format Ruling of Journal Recording in Journal Compound Journal Entry	28

4. Ledger	- Understand the meaning, and procedure for posting from Journal	Meaning Definition Posting Guiding rules for posting in Ledgers Balancing the Account Utility Difference between Journal and Ledger	28
5. Recording of Noncash Transactions	- Understand the meaning, advantages, and types of special purpose Books	Special purpose books - meaning Advantages Trade Discount Cash Discount Distinction Purchase Book Purchase Return Debit Note Sales book Sales Return Book Credit Note Journal Proper Opening Entries Adjustment entries Closing Entries Correction Entries Transfer Entries Entries for Transactions of Infrequent	14

		nature.	
6. Recording of Cash Transaction	Understand the Meaning, need advantages and types of Cash Book	Cash Book Meaning Need Advantages Types of Cash Book Simple Cash Book Cash Book with Cash and Discount Columns Cash Book with Cash Discount and Bank column Analytical Petty Cash Book	28
7. Bank Reconciliation Statement	Understand the meaning, need reasons for Disagreement and the meaning of the Pass Book	Meaning Need Reasons for Disagreement Bank Pass Book Distinction between Cash Book and Pass Book Procedure for preparing Bank Reconciliation Statement Format	14
8. Trial Balance	Understand the meaning, Definition, uses and limitations of Trial Balance	Meaning Definition Uses Limitations Format	7

9. Errors and their Rectification	- Understand and know the location of Errors and their Rectification	Meaning Types Errors disclosed by Trial Balance Errors not disclosed by Trial Balance Stages of Rectification	14
		9.6. Suspense Account	
10. Final Accounts	- Understand the preparation of Final Accounts	Introduction Trading Account Format of Trading Account Profit & Loss Account Format of Profit & Loss Account Balance Sheet Format of Balance Sheet Assets Liabilities Distinction between Trial Balance and Balance Sheet	28

COMMERCE AND ACCOUNTANCY SYLLABUS OF STANDARD XII

While selecting the text book, it gives not only rules, principles, practices and information of the subject but acts as a guide of the teacher as well as the student. Text book and syllabus material should satisfy the examination needs of the student also. The syllabus of commerce remains completely up to date for any length of time.

COMMERCE -(XII STANDARD)

Unit & Number	Expected Learning Outcomes	Content	No. Of Periods
1.Organis ation	Understand ing the meaning of rganization. Analyses the differen types of organizations	Meaning and definition Principles of organization Types of organization Sole trader Partnership firms Hindu Undivided family	20
	Explaining the relationship between the different types of business organizations.	Joint Stock Company Co-operatives Government in Business Multinational Companies	
2. Sole trader	Understanding the meaning and special features of sole trader, Appreciates the merits of sole trader, Analyses the demerits of sole trader.	Meaning and Definition Special features of Sole trader Merits of Sole trader Demerits of Sole trader Suitability Role of sole proprietorship in the society One man Control	20

3.Partnership	Understanding the definition of partnership Differentiates sole trader with partnership, Appreciate the merits of partnership, Recognizes the importance of registration of firms, Develops skills in preparing deed, Analyses the role of partners.	Meaning and Definition Special features of partnership Similarities between sole trader and partnership Merits and Demerits of partnership Types of partnership Kinds of partners Rights duties and liabilities of partners Partners express and implied authority Partnership Deed Registration of firm Dissolution of partnership	30

4.Companies	Recalls the demerits of partnership, Understanding the meaning and special features of company. Recognizes the different documents (that are) used in a company. Differentiates shares and debentures. Understand the management of a company, Analyses the different types of meetings, Knows the importance of statutory meeting.	Meaning and Definition, Special features, merits and demerits Differences between partnership and company Kinds of companies Private company- public company - meaning - privileges of a private company Differences between a private company and a public company Formation of a company Memorandum of Association Articles of Association Prospectus Shares - meaning - types Debentures - meaning - kinds of debentures Differences between shares and debentures Company management- directors, managing director and secretary - Their duties and liabilities Meetings - meaning - kinds - Proxy - Quorum - Agenda Resolution - Meaning - kinds - Voting - Minutes	30
5. Stock exchange	Recalls the need for Large Scale Industries, Understanding the meaning of share market. Knows about stock exchange, Recognizes the importance of SEBI.	Introduction to securities market - meaning - definition - primary and secondary market Procedures regarding new issues 5.3. Stock exchange - meaning - characteristics - functions - benefits - limitations. Investors and speculators - kinds - differences SEBI - features - objectives - functions - powers Mutual funds - advantages -	30

		On Line Trading	

6.Co-operatives	Understanding the meaning of co- operation, Recognizes the importance of co-operatives, Appreciates the merits of co-operatives, Analyses the demerits of co-operatives, Differentiates companies and co-operative societies, Knows the different types of Co-operative societies	Meaning and definition - Principles of cooperation Special features of cooperatives Merits and demerits Types of co-operative societies Differences between companies and co-operatives societies	15

Unit & Number	Expected Learning Outcomes	Content	No. Of Periods
7.Computers in business	Knowing the evolution and role of computers. Knowing the role and application of computers in the day to day business activities.	Introduction to computers Evolution and Role Advantages and disadvantages Applications of Computers in Business	25
8.Entrepreneurship	Understanding the concept of Entrepreneurship, their functions and their contribution for the economic development of the country.	Entrepreneurship-Meaning and Definition Distinction between an entrepreneur and Manager Nature and characteristics of an Entrepreneur Types of Entrepreneur Functions of an Entrepreneur Women entrepreneurs Role of Entrepreneur in Economic Development	30

Accountancy is one of the core subjects in Commerce discipline. It is most interesting and practically relevant subject for the students aspiring professional courses like CA, ACs, ICWA, MBA, MCA etc. Yet considering the latest development in the field, certain modifications and additions were made in the exiting syllabus, to make it more informative and practical oriented.

ACCOUNTANCY-(XII STANDARD)

Unit & Number	Expected Learning Outcomes	Content	No. Of Periods

1. Final Accounts - Adjustments	Understand the preparation of Final Accounts with Adjustments	Introduction Adjustments Closing Stock Outstanding expenses Prepaid Expenses Accrued Incomes Incomes received in Advance Interest on Capital Interest on Drawings Interest on Loan Interest on Investment Depreciation Bad Debts Provision for Bad and Doubtful Debts Provision for Discount on Debtors Provision for Discount on Creditors	28
2.Depreciati on	Understand the Meaning, Definition need causes and methods of Depreciation	Meaning Definition Need Causes of Depreciation Methods of Depreciation Straight Line method Written Down Value method Distinction between straight line method and Written Down value method.	14

3. Accounts from Incomplete Records (Single Entry)	To know how to Prepare accounts from Incomplete records	Meaning, Definition Features Limitations of Single Entry Distinction between Double Entry system and Single Entry Methods of ascertaining Profit or Loss Statement of Affairs Method Distinction between Statement of affairs and Balance Sheet Conversion Method	21
4.Account-ing ratios	Understand various classification of Accounting ratios	Introduction Definition Object Advantages Classification Liquidity Ratios Solvency Ratios Profitability Ratios Activity Ratios	21

5.Computer ized Accounti ng	Understand the nature, significance of computerised accounting and preparing reports	Introduction Components of Computer Advantages of Computer Importance and Capabilities of Computer Computerised Accounting Significance of Computerised Accounting Groups Ledger Creating a Ledger Display of individual Ledger Alternation of Group Account Creating Multiple Ledger Reports Alter Report	28
		5.15. Display of Trading, Profit and Loss and Balance	

6. Accounting for Partnership Firm-Fundament als	Understand the meaning, Definition and reparation of Capital Accounts	Meaning Definition Features Partner's Capital Account Fixed Capital Fluctuating Capital Distinction between Fixed Capital and Fluctuating Capital Interest on Capital Interest on Drawing Methods of Valuation of Goodwill Factors affecting the value of Goodwill	14
7. Accounting for partnership Firm - Admission	Understand the adjustments to be made at the time of admitting a new partner	Introduction Calculation of New ratio and sacrificing Ratio Revaluation of Assets and Liabilities. Transfer of undistributed Profit or Loss Transfer of Accumulated Reserve Treatment of Goodwill Recording the Capital of a new Partner	21

8.Accounting for Partnership Firm - Retirement	Understand the adjustments to be made at the time of retiring a Partner	Introduction Calculation of new ratio and gaining ratio Revaluation of Assets and Liabilities Transfer of Undistributed Profit or Loss Transfer of Accumulated reserve Treatment of Goodwill Settlement of the retiring Partner's Claim	14
	Understand the Accounting Treatment of issue of Shares	Introduction Definition Characteristics Share Capital and its types Shares and their types Issue of Shares Forfeiture of Shares Re-issue of forfeited Shares Disclosure of Share Capital in Company Balance Sheet Latest Techniques for issue of Shares	28

SYLLABUS OF COMMERCE AND ACCOUNTANCY IN STATE AND CBSC BOARD

CBSE SYLLABUS

Almost all schools in India like Kendriya Vidyalaya as well as the JawaharN Vidyalayas in addition to other private school in the Delhi NCT are affiliated to the CBSE syllabus. The complete syllabus is separated into units. Each unit is then allotted a number of periods that are necessary to cover the portions of an academic year. The weight age marks thus got will

be added to the score of the final exams. By this method, the students and the teacher would be able to plan the study of the variety of divisions of the syllabus correctly and efficiently. It is an autonomous body.

STATE SYLLABUS

The state syllabus is dependent on the government of that particular State. For each state, a separate education board would be available. The syllabus would then be decided by them as per the normal standards. The mode of instruction of this type of study will include English as well as the regional language.

Key Differentiators between CBSE and State Syllabus

While the CBSE syllabus offers education in a more scientific method, the state syllabus gives more importance to practical implication of related subjects. Another main differentiator amid the two is that, the former is considered much better than the latter. Students of the CBSE have an advantage of the State as the syllabus of the CBSE will be the same all over the nation. In case the students transfer from one state to another, the transition will be marginally easier for them. This would not be similar in the case of the State syllabus students. It would be difficult for some to adjust to the syllabus of another Government school.

CBSE OBJECTIVES OF TEACHING COMMERCE AT THE CLASS XI AND XII

The Central Board of Secondary Education (CBSE) has listed the following objectives of teaching commerce (Business Studies and Accountancy) at the senior secondary stage:

i.   To develop in the students an interest in the theory and practice in business, trade and industry

ii.   To acquaint students with the theoretical foundations and practices of organizing, managing and handling routine operations of a business firm.

iii.   To inculcate attitudes and values leading to the integration of business with the social system with a positive approach

iv.   To enable the students to apply the principles and functions of management to specific aspect of business.

v.   To equip the students with essential fundamental knowledge for setting-up, organizing and handling routine operations of a small scale factory.

vi.   To equip the students with basic information on modern methods of office

operations for effectively carrying out paper work in a business office.

vii. To impart knowledge of methods considered useful in maintaining records of proprietary and partnership firm companies and non-trading organizations.

viii. To generate and promote awareness of students in modern techniques of maintaining accounting records with the help of computers.

ix. To enable the students to analyze financial statements and interpret the result for decision making.

x. To acquaint the students with practice and procedure of determination of cost from the point of its elements.

xi. To create an awareness of the necessity of auditing the detection/rectification of errors/frauds in the process of accounting.

STATE BOARD OBJECTIVES OF TEACHING COMMERCE AT THE CLASS XI AND XII

The State Board has listed the following objectives of teaching commerce (Business Studies and Accountancy) at the senior secondary stage:

i. To make students understand the importance of nature of trade and activities in trade, commerce and business.

ii. To enable students to undertake various banking activities.

iii. To develop various fundamental principles of economic implications of business investments so that they may understand as to how to do business and how to make investments in business and trade.

iv. To make students understand about transportation, information and broadcasting and to understand as to how do they benefit individuals, the society and the nation.

v. To enable students to appreciate the organization and business organization.

vi. To develop students capacity to appreciate the services rendered national and international trade and commerce.

vii. To appreciate the activities of the various instruments of business credits adopted by business houses.

viii. To develop students knowledge about various business practices and procedurals.

ix. To provide the students with some background information that may help them in their effort on studying vocational knowledge and techniques of applying them in business.

x. To provide the students with such experiences that enables them in

understanding the economic relations of the world and become intelligent participant in community and national affairs.

xi. To help students to develop skills of organizing and managing different business machineries so that they may be able to acquaint themselves with routine of the office.

xii. To develop in students to be able to serve in various sectors of trade, commerce and business.

xiii. To enable the students to be able to serve in various sectors of trade, commerce and business.

xiv. To help the students to prosecute their higher education with better and complex skills needed at that stage.

Check your Progress

 Notes: a) Write your answer in the space given below

          b) Compare your answers with those given at the end of the unit

3. The………………….experiences are necessary in commerce teaching.

4. Commerce committees must include persons in …………………….field

5. List out the major vocational areas in commerce curriculum at higher secondary level

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ACADEMIC AND VOCATIONAL CURRICULUM

The term academic curriculum refers to the lessons and academic content taught in a school or in a specific course or program. It is typically refers to the knowledge and skills students are expected to learn, which includes the learning standards or learning objectives they are expected to meet; the units and lessons that teachers teach; the assignments and projects given to students; the books, materials, videos, presentations, and readings used in a course; and the tests, assessments, and other methods used to evaluate student learning. An individual teacher's curriculum, for example, would be the specific learning standards, lessons, assignments, and materials used to organize and teach a particular course.

The vocational curriculum is a broad term that is in some ways better approached from the point of view of what it is not. It is invariably found coupled with, or perhaps opposed to the term academic curriculum. That is to say, it refers in the very broadest terms to education and training provision that

pertains to vocational occupations. Courses in areas such as hairdressing, beauty therapy, catering, construction and engineering are typical of the vocational curriculum. By contrast, the academic curriculum tends to be defined in terms of courses in subjects such as mathematics, history, modern languages, sociology and chemistry. As an educational construct, the vocational curriculum can be seen at work in both colleges and the workplace. That is to say, the vocational curriculum is in some sense delivered or assessed in both formal educational settings such as FE colleges or private training centres, and formal educational settings such as factory floors or workshops. In both settings, however there is an assumption that formal education or training processes are taking place. The ways in which people learn through informal processes in workplaces tend to be theorized quite differently in terms of both how learning happens and what, and where, the curriculum is.

SUMMARY

A good curriculum provides for all educational objectives which are to achieve the complete fulfillment of a man in all richness of his personality, the complexity of his forms of expression and his various commitments - as individual, member of a family and of a community, citizen, producer, investor of techniques and creative dreamer. Curriculum itself is an evolving concept. The whole life of the school becomes the curriculum. The development of balanced personality is the core activity of the curriculum. The ultimate purpose of education should provide opportunity to students to gain the knowledge, skills, competencies, attitudes and values in order to achieve productive lives for themselves and others. The curricular activities should be future oriented. The rapid trend to globalization and technological changes have made difficult for organization to survive in the competitive world. As a result the importance of education has been increased may folds.

KEY TERMS

- ❖ Curriculum
- ❖ Principles in construction
- ❖ Curriculum organization

- ❖ XI and XII standard commerce and accountancy syllabus
- ❖ Syllabus of commerce and accountancy in state and CBSC board
- ❖ Academic and vocational curriculum

ANSWERS TO 'CHECK YOUR PROGRESS'

1. In the words of Arthur Cunningham "Curriculum is a tool in the hands of an artist (teacher) to mould his materials (pupils) according to his ideals (objectives) in his studio (School)".
2. Principle of conformity with aim of education, principle of child centredness, principle of utility, principle of creativity, principle of flexibility, principle of forward looking etc.
3. Practical
4. Business
5. Stenographic and Secretarial works, Book-keeping and Accounting works, Clerical and general office work, Office practice works-handling labour saving machines.

QUESTIONS AND EXERCISES

1. Explain the term 'curriculum'.   Why should Commerce Education be introduced in the curriculum?
2. What is the scope of Commerce Education Curriculum? Evaluate the prevalent Commerce Education Curriculum in your state; what suggestions would you like to make it more effective and meaningful?
3. What considerations should kept in view while constructing the Commerce Curriculum?

LEARNING OUTCOMES

This unit is meant to help you to learn the meaning, definition, nature and the principles of commerce curriculum construction.

After going through this unit, you should be able to:

- define the term curriculum;
- describes the principles of curriculum construction;
- knows the nature and scope of inclusion of commerce in the curriculum

- status of commerce curriculum construction in our country;

FURTHER READING

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UNIT V INSTRUCTIONAL METHODS

Structure

INTRODUCTION

Teaching of Commerce and Accountancy involves effective organisation of learning activities to students. The organisation is not mere presentation of text book material. The learning activities must be organised in such a way that it will give scope for estimating the extent of realization of objectives. This unit deals with the lecture method, descriptive method, objective based method, demonstration, lecture cum demonstration method, problem solving method, project method, includes inductive and deductive methods of teaching and case study. Discussion methods like seminar, symposium, workshop, panel discussion, brain storming, heuristic method, simulation and role playing, are discussed here.

LEARNING OBJECTIVES

After going through this unit, you will be able to:

❖ Explain the lecture method and its advantages and disadvantages,

❖ Understand the lecture method how to make it effective,

❖ Explain the descriptive method,

❖ Understand about objective based method

❖ Explain demonstration method, lecture cum demonstration method;

❖ Study the importance of problem solving method and its need,

❖ Understand about discussion methods

LECTURE METHOD

Lecture method can be considered as the oldest teaching method. It is based on the philosophy of idealism. Lecture is generally described as a teacher centred teaching method involving one way communication mostly by way of verbal exposition. In the field of any theory subject, it has great significance. Nowadays in Colleges and higher education institutions most of the teachers are using lecture method. However, all lectures are not effective and interesting and a number of drawbacks have been pointed out by educators. But lecture continues to be one of the common methods of teaching as it has certain conveniences. The student teacher ratio can be large, which in turn help to reduce financial commitment of an institution. It is a flexible method as teachers can adopt themselves to the subject matter, achievement level of students, time limit, etc. A competent teacher can make the lecture meaningful and interesting by posing problematic situations and by using interesting and illustrative mediators.

Psychological principles leading to effective lecturing

i. The delivering of lecture should be in an active mode.

ii. A lecturer should think from point of view the students. It should not be a mere exposition of his subject mastery.

iii. The lecturer should present the subject matter in a systematic way. All the

concepts should be sequentially arranged and clearly explained.

iv. The lecturer should use the language which is easily understandable to each student. It should be simple, unambiguous and lucid.

v. The lecturer should sustain interest and attention by posing challenging situations and by interspersing the lecture with mediators like interesting examples, anecdotes. etc.

How to prepare and deliver more effective lectures?

i. Don't be so rigid with the plan of the talk. Changes should be made according to the nature of the learners. For example, in a higher secondary class, the learners generally found to experience tension. This tension should be released and a receptive mood created before starting the actual talk.

ii. It is probably better to outline the lecture notes than to write everything to be exposed in full. Using a properly prepared outline for exposition will avoid the tendency to read out the lecture, which might lead to monotony.

iii. Distribute among the audience appropriate reading materials prior to the presentation. This encourages pupils to think in advance about the content to be covered

iv. A good beginning is an important factor for an effective lecture. A lecturer must capture the learner's attention. Make use of stimulating audio visuals, demonstrations and provocative questions. Pose leading questions or problems at the beginning of the lecture to provide direction for the learners as to what is most important. This would also help to stimulate interest.

v. As already indicated intersperse the exposition with catching mediators.

vi. The appropriate use of humour is a wonderful means of Stimulation attention and imagination.

Tips for delivering a good lecture

There are several strategies to increase the impact of a lecture. Some of them are listed below: -

i. Set a learning climate.

ii. Limit the quantum of information according to the time allotted.

iii. Speaking should be clear, loud enough and maintaining appropriate pace.

iv. Use conversational rather than, pedantic, authoritative tone.

v. Look at the learner, while lecturing.

vi. Ensure gestures and other body movements, but don't over do it.

vii. Complement the lecture with other instructional methods.

Advantages of the lecture method

i. It is easy for the teacher to prepare and execute.
ii. Large number of students can be handled at the same time.
iii. The teacher can express his ideas very effectively by his tone, gestures and facial expressions.
iv. It provides better opportunity for clarification of important things.
v. It can be organized in accordance with the principles of educational psychology.
vi. This method is more helpful in introducing a new topic.
vii. Lecture method develops in the learners habits of close attention.
viii. It provides opportunities of correlating events and subjects.

Disadvantages of the lecture method
i. Lengthy lectures can easily lead to boredom.
ii. It does not encourage pupil activity unless the lecturer is extremely competent.
iii. The students are generally passive recipients.
iv. The average student may not be able to fix up his attention to a lecture for a long duration. During this span his attention may be diverted.
v. In this method more content may be covered by a teacher, but less learning may take place.
vi. A lecture may become monotonous to the pupils after a while. Very few teachers can sustain interest up-to the end.
vii. There is no way to know the reactions of the pupils, because in most cases there is no interaction between the teacher and the pupil.

How to evaluate a lecture?
The evaluation can be either formative or summative. The evaluator can collect data with the help of an evaluation tool. The evaluation tool may contain the following factors.
i. The speaker's subject competence.
ii. The language used.
iii. The degree of transparency of presentation.
iv. Extent of realisation of objectives.
v. Use of audio visual aids and other mediators.
vi. Attention of the pupils.
vii. Extent of stimulus variation.
viii. Appropriateness of the presentation to the content.

DEMONSTRATION METHOD

Demonstration is useful instructional method which is employed in teaching Commerce. Demonstration means showing how something is to be done or not be done. Through demonstration a teacher presents a skill before the students. The student's role is that of the observer and recorder of information and skills. In a higher secondary class, the commerce teacher can adopt this method related to the development of skill is being taught. It is most effective when followed by a corresponding student activity.

Check your Progress

Notes; a) Give your answer as instructed in each question.

b) Compare your answer with those at the end of the unit.

1. How can you deliver your lecture more effective?

    ....

    ....

2. How will you teach commerce through descriptive method?

    ....

TEAM TEACHING METHOD

Origin and growth of team teaching: USA is said to be the birth place of team teaching. In 1955, it was initiated at the Harvard University. The second milestone was at Lexington in 1957.

Francis Chase of the University of Chicago and J. Leyond Trump, Director of the Commission of the experimental study popularised the movement in the secondary schools in the USA.

In the 1970's, almost all institutions in the USA used team teaching in one or the other way.

Now several advanced countries in the world make use of team teaching to improve the quality of instruction.

In India and in other Developing countries, team teaching has not gained ground in the instructional process on account of several reasons.

Meaning of Team Teaching:

Team teaching is one of the most interesting and significant recent development in education. It is an innovation in school organisation in which two or more teachers teach a group of students. The group is benefited by the expertise of different teachers. It is an organisational structure to improve teaching-learning process in the classroom. **Carloobson,** "Team teaching is an instructional situation where two or more teachers possessing complimentary teaching skills co-operatively plan and implement the instruction of a simple group of students using flexible scheduling and grouping techinques to meet the particular instruction."

David Warwick, "A team teaching is a form of organisation, in which individual teachers decide to pool resources, interest and expertise, in order to devise and implement scheme of work suitable to the needs of their pupils and the facilities of their school".

Characteristics of team teaching

1. It is an instructional arrangement.
2. It involves teaching to be conducted by two or more teachers.
3. It calls for team spirit in teaching.
4. Team spirit of teachers is bound to benefit the students to the maximum.
5. It is sort of pooling of expertise and resources of teachers such as experience, interest, knowledge and skills etc.
6. It is economical as it results in more work in less time.

Objectives of team teaching

1. To bring about improvement in instruction.
2. To make the best use of the expertise and talents of teachers.
3. To develop the feeling of cooperation and group work among teachers.
4. To make the best use of the resources of the school.
5. To develop the feeling and sense of shared responsibility among teachers.
6. To expand the scope of teaching good things to students in the most effective manner.
7. To increase flexibility in grouping and scheduling as the team teaching groups students according to their interest and aptitudes in the subject.

Types of Team Teaching: Johnson and Hurt (1968) explain the following three types of team teaching.

1. *Team teaching within a single discipline*. It is a team of teachers carries on cooperative teaching in the same subject. For instance, two or three teachers of English may teach the subject together in the same class.

2.   ***Different team experts related to the course***. It is different teachers who are experts in their own fields are asked to teach together some course which is related to all of them.

3.   ***Combined team teaching with related innovations***. It is a few teachers who are interested in some innovations are asked to discuss their innovations of classroom teaching to one group of learners.

Guiding principles of Team teaching

1.   Allocation of duties to teachers on the basis of their interests, qualifications and personality characteristics.

2.   Making varying size of the group according to the purpose of the team teaching.

3.   Allotment of time according to the importance of the subject.

4.   Providing appropriate learning environment by making arrangement of laboratory, good library, workshops etc.

5.   Providing appropriate learning behaviour to each learner within the group.

6.   Exercising constructive supervision on the activities of the group.

7.   Keeping the level of team teaching appropriate to the level of the learners.

Advantages of team teaching

1.   It stimulates thought and discussion among teachers who are jointly responsible for a group of students.

2.   A strong sense of involvement and responsibility develops among the students.

3.   It gives adequate opportunities to students for free expression.

4.   It affords opportunities to the students to develop human relations essential for social adjustment.

5.   Teachers are motivated to work hard for the development of their professional proficiency.

6.   Students get the opportunity to be benefited by the special knowledge of teachers constituting the team.

7.   It makes proper use of the staff, equipment and the school building.

8.   It helps in the maintenance of discipline as it makes the best use of the time and energy of the students.

9.   It helps teachers to evaluate the work of one another and provides opportunities for improving one's own teaching.

10. It provides a flexible class size.

11. Teachers work in the totality of a situation.

12.   It helps in the improvement of instruction.

Limitations of Team Teaching
1.   Resistance from the teachers on account of their traditional conservative attitude.
2.   Lack of facilities.
3.   Lack of mutual cooperation among teachers.
4.   High costs of the scheme.
5.   Problem of delegation of power to teachers.
6.   Non-availability of sufficient accommodation.

PROBLEM SOLVING METHOD

The basic purpose of education is to enable the child to adapt himself to life in society which is full of problems. To be successful, one must be adequately equipped with proper reasoning and reflecting power. Not only life in society, there are problems and puzzling situations which are normal features of a child's everyday life in school also. These problems grow in complexity as he grows older and older. Therefore, it is very important that problem solving must be encouraged in school life.

Children are curious by nature. They want to find out answers of several questions which sometimes are baffling even to adults. Nevertheless they must be helped to satisfy their curiosity as far as possible by providing answers to their questions. This implies that we must teach them how to think and reflect so that they are able to apply this to a vast number of varied problem situations. Problem solving ability enables the child to find appropriate solutions of problems which confront him.

Problem solving is an instructional method or technique whereby the teacher and pupils attempt in a conscious, planned and purposeful effort to arrive at some explanation or solution to some educationally significant difficulty. It is a planned attack upon a difficulty or perplexity for the purpose of finding a solution. Yoakam and Sompson define it as, "A problem occurs in a situation in which a felt difficulty to act it realized". It is a difficulty that is clearly present and recognised by the thinker. It may be a purely mental difficulty or it may be physical and involve the manipulation of data. The individual recognises it as a challenge."

Dewey explains problem solving as, "Whenever-no matter how slight and common place in character-perplexes and challenges the mind so that it makes a belief at all uncertain there is a genuine problem. The problem fixes the end of thought and the end controls the process 'of thinking." According to Gates, "a problem exists for an individual when he has a definite goal he cannot reach by the behaviour pattern which he already has available."

Problem solving is not merely a method of teaching. It is more a method of organisation of subject matter in such a way that it can be dealt with through the study of problems. However, this concept of problem solving does not seem to be suitable at the schools stage.

Following are the essential features of the problem:

1. The problem should be meaningful, interesting and worthwhile for children.
2. It should have correlation with life.
3. It should have some correlation with other subjects if possible.
4. It should arise out of the real needs of the students..
5. The children must possess some background of the problem which they are going to discuss.
6. The problem should be clearly defined.
7. The solution of the problem should be found out by the students themselves working under the guidance and supervision of the teacher.

STEPS IN PROBLEM-SOLVING

The steps of problem solving are as given below. .

(1) *Formation and Appreciation of the Problem*. The nature of the problem should be made very clear to the students. They must also feel the necessity of finding out a solution for the problem.

(2) *Collection of Relevant Data and Information*. The students should be stimulated to collect data in a-systematic manner. Full cooperation of the students should be secured. They may be invited to make suggestions as to how they could collect the relevant data. The teacher may suggest many points to them. He may ask them to read extra books. He may also ask them to organize a few educational trips to gather the relevant information.

(3) *Organization of Data.* The students should be asked to sift the relevant material from the superficial one and put it in a scientific way.

(4) ***Drawing of Conclusions***. Discussions should be arranged collectively and individually with each pupil. Panton suggests that the teacher's aim should be to secure that, as far as possible, the essential thinking is done by the pupils themselves and that their educative process produces the particular solution, formulation of generalizations at stake. "Care should be taken that judgment is made only when sufficient data is collected."

(5) ***Testing Conclusions***. No conclusion should be accepted without being properly verified. The correctness of the conclusions must be proved. The students must be taught to be critical, to examine the "truths" which they "discover" to see "whether they fit all the known data." We should have our minds free from every bias in the process of problem-solving.

Merits of Problem-Solving

Following are the merits of problem solving:

1. It helps in stimulating thinking.
2. It develops reasoning power.
3. It helps to improve knowledge.
4. It helps in developing good study habits.
5. It affords opportunities for participation in social activities. Problems are solved with the joint efforts of many students. The students learn to appreciate the different points of view and thus become tolerant.
6. The students learn to be self-dependent.
7. Discussions help to develop the power of expression of the students.
8. The method provides opportunities to the teachers to know in detail their pupils. They learn which students are shy in nature and which are very active and accordingly they assist the students.
9. Students learn facts which are meaningful and which have been discovered by their own efforts.
10. It helps in the maintenance of discipline. The students remain busy in finding out the answers to their own problem.
11. Knowledge is easily assimilated as it is the result of a purposeful activity.
12. Learning becomes more interesting in place of a dread.
13. It gives the power ~f critical judgement.
14. It helps to verify an opinion.
15. It satisfies curiosity.
16. It helps to learn how to act in a new situation. .

Demerits of Problem-Solving.

The demerits are given below:

1. Generally speaking problem solving involves mental activity only. There is less of bodily activity.

2. Small children do not possess sufficient background information and therefore they fail to participate in discussions.

3. There is a lack of suitable reference and source books for children.

4. It involves a lot of time and the teachers find it difficult to cover the prescribed syllabus.

5. Problem method needs very capable teachers to provide effective guidance to students.

6. There is the danger that the problem method may lead to the selection of trivial topics and in some instances to-those that generate more feeling and emotion than though

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Check your progress

Notes; a) Give your answer as instructed in each question.

b) Compare your answer with those at the end of the unit.

7. Define the term problem solving method.

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8. Bring out the steps involved in the problem solving method of teaching.

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INDUCTIVE AND DEDUCTIVE METHOD

The inductive method makes the students arrive at general conclusions or establish laws through observation of particular and concrete them. Rules discovered are more likely to be grasped well than rules explained. Therefore inductive method is more effective in learning. This approach is mainly developmental. It is easy to understand book keeping principles because the doubts about how and why of a formula are clarified in the very beginning. It gives an opportunity of active participation for the students in the discovery of a formula. This reduces the dependence on memorisation. It is the best method to introduce the new rule. For example the commerce teacher can teach the way of preparing trail balance under this method. Instead of explaining the rules for trail balance the teacher can ask the students to prepare ledger and find out the balances. If it is a debit balance he can ask them to put it in the debit side. If it is credit balance ask them to put it in the credit side. Now the trail balance get tally. He can give two or three more problems of this type. This will lead the students come to a conclusion or formulate rules for preparing trail balance. If the students are not able to come any conclusion the teacher can give some clue to find the rules. Here the students can find out the rules for preparing trail balance by themselves. The teacher is not teaching or explaining any rule here. They never forget the rule. If they discover, therefore it is the best method to introduce the rule in the class.

The following are the merits of the inductive method:

1. Knowledge is self-acquired and is soon transformed into 'wisdom.' General truths in order to be learned must be earned' a famous saying and the inductive method is true to it.

2. It promotes mental activity on the part of the pupils and makes them active participants in the learning teaching process.

3. It makes the lesson interesting by providing challenging situations to the students.

4. The method affords opportunities to the students to be self-dependent and develops self-confidence.

5. The student's curiosity is well-kept up till the end when generalisations are arrived at.
6. This method is very natural because the knowledge in possession of man has been acquired in this way from the practical side of experience.
7. The child learns how to tackle problems. He not only acquires more facts but also learns the way of acquiring facts which prove: him useful for practical life.
8. The method is based on sound psychological principles. Learning by doing is the basis of this method.

The demerits of inductive method are as follows:
1. There is every possibility that the students may draw conclusion very hastily and these may be based on insufficient data and, therefore, will be wrong.
2. The method is very slow and lengthy.
3. It is not very helpful in the case of small children.
4. It is not suitable in the teaching of subjects in which there is more stress on the teaching of facts. It is not possible for us to experience facts in history and in so many other subjects.
5. The inductive method is not a complete method in itself. It has been said, "Induction does not prove but only provides the material to prove, it only discovers." When we have discovered a principle, we have to apply it again on some concrete instances for its verification. Therefore, we need deductive method to ensure the value of inductive process.

The deductive method is the opposite of the inductive approach. In this method - learner proceeds from general to particular, abstract to concrete and formula to examples. The pre-constructed formula or definition is told to the students and they are asked to solve or face the new situation with the help of that formula. Here the learner accepted that the formula or definition is a pre-established and well established truth. For example, the teacher can also teach the trail balance by way of this deductive method; instead of asking the students to prepare trail balance by way of inductive method that is first ledger then finding the nature of balance and the trail balance. The teacher can first explain the rule for preparing trail balance. That is all the assets, expenditure and losses come under the debit side of the trail balances. All the liabilities, profits and receipts come under the credit side of the trail balance. Then he can give a problem and ask them to

prepare trail balance. Here the learner proceeds from general rule to solve a particular problem.

The merits of the deductive method are as below:

1. The teacher's work is simplified. He gives general principles and the students verify them.
2. This method is very economical. It saves time and energy both of the students and the teachers. Many principles for the discovery of which mankind have taken a lot of pains can be told to the students easily.
3. It is very suitable for small children who cannot discover truths for themselves. They get ready-made material.

The demerits of the deductive are,

1. Knowledge is not self-acquired and, therefore, not assimilated properly.
2. The child is deprived of the pleasure of self-activity and self effort as ready-made formulae, principles and rules are given to him.
3. It encourages memorisation of facts which are soon forgotten and, therefore, knowledge is rendered useless.
4. This method is unnatural and unpsychological for the students who do not possess ability to appreciate abstract ideas in the absence of concrete examples.
5. It fails to develop motivation and interest in the learning as the truths are not of much value to them.
6. It fails to develop self-confidence and initiative in the students.

Combination of Deductive and Inductive Method:

The two approaches inductive and deductive aim at establishing the validity of the thought process. Induction is to be the forerunner of predecessor of deductive. The deductive will give a good follow up for the understanding obtained earlier by induction. The two approaches are such good partners that the shortcoming of the one removed by the other. Deduction is a process particularly suitable for the final stage or revision stage and induction is most suitable for the beginning or initial stage, especially at the time of exploration of new fields. The modern teaching always starts with induction leads to deduction where the knowledge learnt is verified. There is no question of 'either or' both are required.

PROJECT METHOD

This method is the direct outcome of John Dewey's pragmatic philosophy.   It is based on the idea that true knowledge is acquired not merely by reading books nor by attending lectures but by purposive planning and doing by the learners themselves for the purpose of handling problematic life situation. 'Learning by doing', 'Learning by living', 'Problem orientation' and 'working in natural settings' are the four cardinal principles of this method.

Steps in the project method

1. Providing a situation
2. Choosing and purposing
3. Planning
4. Executing the project
5. Evaluating the project
6. Recording

DISCUSSION METHOD AND ITS VARIOUS FORMS

A group discussion means an exchange of ideas accompanied by active learning, with all the members of the group participating in it. It is a free discussion regarding a topic by a group.

Mc Bumey and Hance have defined group discussion as, "the co-operative deliberation of problems by persons thinking and conversing together in face to face co-acting in group under the direction of the leader."

The dictionary of Education describes group discussion as "An activity in which people talk together in order to share information about a topic or problems to seek possible available evidence of a solution".

The structure of a group

The structure of a group consists of the leader, group and topic. Usually in a class-room situation the teacher acts as the leader. But in normal situation one of the group members acts as the leader. The leader of the group is responsible for directing the discussion.

The participants of the discussion are collectively known as the group. In school situation the class can be considered as the group.

The topic is the essence of the group discussion. It can be either a small unit of the curriculum or a set of related information. The participants discuss various aspects concerning the topic.

Objectives of group discussion

1. To stimulate reflective thinking.
2. To enrich previous knowledge.
3. To encourage creative expression.
4. To develop desirable social attitudes by participating in groups.
5. To practice the technique of co-operative thinking.
6. To develop the habit of group work.

Principles of group discussion

1. Every group discussion should have some purpose.
2. The topic should be related to the common needs and interests of the participants.
3. Students should have sufficient background information and knowledge about the discussion topic.
4. Individual members should be assigned with adequate responsibilities.
5. The group leader should take initiative to report the progress of the discussion to the outside world.
6. A fixed time schedule should be drawn up for the discussion.
7. The teacher should ensure active participation of the members.

Suggestions to make group a discussion effective

1. Start the discussion on time.
2. Try to make the group feel at ease.

3. State the general purpose of the discussion well in advance.
4. Word the topic clearly but concisely.
5. Explain the discussion procedure and define its limits.
6. Encourage participation by all members.
7. Control the over-talkative member.
8. Encourage the shy member to participate actively.
9. Don't allow one or two members to monopolize.
10. Deal tactfully with irrelevant points presented.
11. Avoid personal arguments.
12. Keep the discussion moving
13. Ensure that the discussion is relevant to the topic.
14. Summarise occasionally.
15. Use audio-visual aids wherever it is needed.

Types of group discussion
1. Spontaneous discussion

Spontaneous discussion generally results from student question about current events related to the topic under study. This method helps the students to gain updated information as well as to analyse and relate facts to real life situations. The knowledge of facts leads to the development of understanding. This increases the level of learning. of the students.

2. Planned discussion

In planned discussion, the activities are planned in advance. Here the teacher's role is to encourage the students to participate actively in the discussion according to the pre-plan. The teacher should also help the students in drawing conclusions.

Advantages of group discussion method
1. It develops group feeling and social participation.
2. It develops self confidence and sense of responsibility among the individuals
3. It enables the learner to analyse the subject matter thoroughly
4. It helps to develop communication skill among the students
5. The teacher can observe and collect information regarding the behaviour of the students.

Disadvantages of group discussion method
1. It is time consuming

2.   Lack of preparation among the students may make the discussion pointless

3.   It is not applicable at lower level classes.

W   *Seminar*

Seminar technique is usually practicable in higher education programmes. In this technique a person presents a readymade paper or lecture on a specific subject before a group. Now-a-days audio visual aids are also used while presenting the matter. The paper presenter can either be an expert or one of the members of the group. Sometimes, the copies of the paper being presented are distributed to the audience in advance. After the presentation, there is a general discussion in which all participants can participate. Here, the participants get an opportunity to clear their doubts. The various actions are taken according to an appropriate time schedule.

Dressel defines the term seminar as, "the structured group discussion that may proceed or follow a formal lecture, often in the form of an essay or a paper presentation".

Objectives of seminar technique

1.   To help the students get an in-depth study of the subject matter.

2.   To develop the habit of tolerance and co-operation among the students.

3.   To help the students overcome the problem of stage fear.

4.   To help in developing the ability for keen attention and to present ideas effectively.

5.   To help in acquiring proper ways of raising questions and answering the questions from others effectively.

Advantages

1.   The learner is helped to develop analytical and critical thinking.

2.   The presenter can be assessed with respect to his skill in organising and presenting subject matter in a systematic way.

3.   Develops self-reliance and self-confidence in the learner.

4.   Develops the ability to comprehend major ideas by listening.

5.   Develops the ability to raise relevant and pin-pointed questions.

Disadvantages

1.   Lack of preparation on the part of the paper presenter may defeat the purpose of the seminar.

2.   The formal structure of seminar restricts the participants from asking questions as and when needed.

3.   The success of the seminar fully depends on the ability of the person who is presenting the topic. His inability will create unnecessary confusions.

Types of seminar

On the basis of levels of organization, there are three types of seminar. They are:

1.   Mini seminar

A seminar organised to discuss a topic in a class in known as mini seminar

2.   Main seminar

A seminar which is organised at departmental level or institutional level on a major theme is known as main seminar

3.   State/National/International seminar

An association or organisation at the state/national/international (eg. UNESCO) levels can organise seminars at the respective levels

W   *Symposium*

Symposium is a discussion by different speakers on the same topic emphasising different aspects. Selected speakers present prepared speeches. Generally, the chairman and the speakers discuss the various aspects of a theme in advance and allot to each one a particular aspect so that each speaker limits his presentation to that aspect. The chairman co-ordinates the different presentations. The total number of speakers may not exceed five excluding the chairman. The audience very seldom participates, as the chairman and the speakers anticipate possible questions and doubts to be cleared and incorporate these in their presentation. It is in this aspect that a symposium differs mainly from a panel discussion or seminar. By adopting the same procedure a class can be converted into a symposium.

When should a symposium be used?

The symposium method is appropriate for any occasion provided the purpose of a session is to present several sides of one question or to approach a central theme from different perspectives in that session itself. It works well when disparate points of view on a controversial topic are brought together. The symposium can be used also to help people understand how related parts of a topic constitute the topic as a whole. An additional use of the symposium is to stimulate fresh thinking on a topic.

Who are involved in a symposium?

There are four aspects involved in a symposium. They are:

1.   The theme

2.   The chairman

3. The speakers
4. The audience

The theme is the topic on which the presentation is to be made. It should be stated in brief but should specify the scope.

The Chairman is responsible for organising and presiding over the symposium. An important quality for a chairman includes knowledge of the topic, ability for lucid exposition of ideas and the ability to facilitate group work. In addition the chairman should be able to tolerate ambiguity and deal with spontaneous situations that might a rise during the symposium. In the class situation the teacher or some suited person can be the chairman.

The speakers are responsible for presenting views in a clear and concise way. They should have a firm grasp of the topic at hand and enough knowledge about the nature and standard of the audience facing them. Under the classroom situation students who are made to prepare thoroughly in advance can serve this purpose. Teachers or invited speakers also can be arranged.

The audience is usually comprised of interested individuals who want to attend the meeting. If it is organised as a curricular/co-curricular programme of any institution, the class concerned will be the audience. Every effort should be made to organise the symposium in a manner that would stimulate thought among participants and enhance their understanding

Advantages of the symposium
1. Symposium brings together knowledgeable speakers who present variety of opinions on a given topic.
2. The problems can be explored quite thoroughly by the symposium method.
3. The audience has the benefit of hearing different points of view that can be challenging and stimulating.

Limitations of symposium
1. The formal structure tends to promote passivity among audience since there is little scope for active participation.
2. Sometimes the symposium members fail to check the scope with each other prior to the meeting which results in repetition of information, confusion and deviations from the assigned topic.
3. It is sometimes difficult to find enough competent speakers to cover the topic adequately.

❖ *Workshop*

The term workshop has been borrowed from 'engineering'. In a workshop persons have to engage in some productive task to produce something tangible. In an educational workshop also something tangible has to be produced by the participants. The product may be some equipment, instructional material, an action plan. etc.

According to R.A. Sharma. "Workshop is an assembled group of ten to twenty five persons who share a common interest or problem. They meet together to improve their individual proficiency to solve a problem or to externalise knowledge and skill of a subject through intensive practical work and discussions."

Objectives of the workshop

1. To develop the psychomotor skill of the learner.
2. To make the subject matter interesting to the student
3. To motivate the students for a particular topic.
4. To give training to teachers in specific areas.

How to organise a workshop?

The conduct of a workshop involves the following stages.

Stage - 1 Presentation of the theme

Here, the resource person presents the theme of the workshop to the participants. Normally, necessary information will be communicated in advance to enable the participants to attend the workshop well equipped. The actual procedure of the workshop is worked out and discussed with the members. The participants can ask question to clear their doubts.

Stage – 2 Practical Sessions

After the general orientation, the participants are exposed to the actual practical work. Here the entire members are divided into small groups and specific productive tasks are also assigned to them. Within the group, each participant is expected to work individually and independently.

Stage – 3 Discussion Sessions

At this stage, all the groups meet at a single place and present the products which they could materialise. The resource person can give suggestions for further improvement.

Stage - 4. Finishing Session

Based on the discussion and suggestions at the third stage, the participants can modify their work. The finished work should be submitted to the authorities concerned.

Advantages of workshop technique

1. It is used to realise the cognitive and psychomotor objectives.
2. It helps to develop practical and realistic knowledge regarding the topic concerned

3. It develops the feeling of co-operation and group work
4. It develops creativity of the students
5. It helps to avoid the fear to face a problematic situation.
6. It results in the production of tangible material that could be used by others.

Disadvantages of workshop technique

1. Lack of motivation from the part of teacher may adversely affect the workshop
2. Lack of availability of resource persons as well as materials may create difficulty in conducting a workshop
3. It is time consuming
4. Special room and facilities required may be absent in school situation.

❖ *Panel Discussion*

Panel discussion is one of the socialized procedures. This is a procedure in which a small group of persons or pupils discuss the assigned problem creatively among themselves in front of an audience.

A successful panel involves three distinct parties:

❖ The *moderator* is responsible for managing the smooth functioning of the discussion by selecting appropriate panel members and guiding discussion.
❖ The *panel members* are persons who possess specialized knowledge of the topic at hand, can articulate verbally in a clear manner and have an interest in the programme.
❖ The *audience* is composed of persons with variety in background and interest.

❖ *Brain Storming*

Brainstorming is basically an activity designed to promote creativity. It is a form of discussion which enables the group to do collective creative thinking. The emphasis in brainstorming is upon eliciting from the students as many

different ideas as possible for more careful consideration at a later time.

Under brainstorming, the mind is stimulated to think without any inhibition whatsoever. The ideas are just accepted as they are. They are never rejected during the process of brain-storming however inappropriate or even irrelevant they might appear to be. The time for a person is limited to 3-5 minutes. The suggestions are taken for comment and close scrutiny subsequently. Everyone is allowed to comment upon to adopt and to elaborate the ideas suggested by the others.

Brainstorming in the class situation invariably leads to generation of new ideas and approaches to the study of the topics. This technique is very useful for enhancing the contribution and involvement of students in the teaching-learning processes.

❖ *Heuristic method*

Under this method, pupils are led to discover the facts for themselves with the help of experiments, apparatus or books. Naturally the procedure adopted will be that if activity method and the reasoning employed will be inductive. The learner invents or discovers items of knowledge. The method emphasizes the process of the growth of mind by one's own effort rather than pouring cooked material into empty vessels.

❖ *Simulation and role playing*

Simulation technique is relatively a new approach introduced in the field of education. Simulation is the presenting of a problem or an event presented in artificially created situations similar to the real one. The presentation is made as near as possible to the real situation or event. A mini working model of an aeroplane being used in training pilots to learn and practice the working of an aircraft is an example of simulation: Now-a-days various computer programmes are used for giving training through simulation. Micro teaching used in teacher training for skill development can also be considered as a form of simulation.

Meaning of Simulation

The International Dictionary of Education defines the term as, "teaching technique used particularly in management education and training in which a real life situation and values are simulated by 'substitutes' displaying similar characteristics." It also means "Techniques in teacher education in which students act out or role play teaching situations in an

attempt to make 'theory' more practically oriented and realistic." Simulation is a must in the world of science and technology. Engineers build models, study their performance, made some adjustments and build a prototype.

In order to perform operations on human, doctors are made to learn the operation techniques by experimenting on frogs and rats etc.

Simulation is a role playing in which the process of teaching student - teachers is enacted artificially and an effort is made to practice some important skill of communication through this. The student-teacher and the' students simulate a particular role and try to develop an identity with the actual classroom environment. Thus, the whole, simulated teaching programme becomes training in role perception and role playing.

Application of Simulation Technique in the Training of Teachers

Mechanism of simulated teaching is adopted in teacher training for removing some of the deficiencies of the demonstration lessons based on traditional lines. Student-

teachers are trained in some artificial laboratory like conditions. They are not directly allowed to use school children for practising their teaching skills and modify their teaching behaviours. They are first provided opportunities to acquire the necessary teaching experiences. Student - teachers are sent to schools for practice teaching through simulated teaching i.e., playing the role of teacher in their own institution within their own group of fellow trainees. In simulated teaching, every student teacher plays three different roles-teacher, pupil (student) and observer. He delivers his lesson to his peers who play the role of students. Some students play the role of observers. The superior or the teacher educator is also present. The peers and the teacher educator (supervisor) observes lesson and notes down all the good and weak points concerning the classroom interaction such as teaching behaviours, content taught, skills, practised and methodology used etc. After the lesson is over, there is frank and free discussion for getting feedback and thereby modifying and improving classroom interaction.

Steps in simulated teaching

1. Orientation of the student-teachers with the concept of simulation, its use in teacher training, steps to be followed in simulated teaching, role of student teachers as students, teachers and observers and the setting for

adopting simulated teaching.

2. Selection of the specific teaching skills to be practised.
3. Demonstration lesson by the teacher educator (supervisor).
4. Formation of groups of student teachers.
5. Assignment of roles-Roles are of the teacher, student and observer in student - teachers.
6. Determining the procedure and technique of an observation of the classroom interaction.
7. Delivering the lesson by the student -teacher.
8. Follow up and further modification in the teaching technique.

D.R. Cruickshank (1968) developed a teacher training system capable of presenting the student with up to thirty-one different stimulated problems related to teaching.

Reasons for the use of simulation technique

N.A. Fattu (1966) has given the following reasons for the use of simulation:

1. When an environment cannot be duplicated exactly, then it may be made as realistic as possible.
2. When a process is to be examined systematically, it may yield information through developing and operation a situation.
3. When a system is too difficult to manage, simulation may suggest a way of breaking it down into sub-systems. Then it may be noted how the skills and the information required may be pooled.
4. When a difficult problem is confronted beyond a teacher's ability, simulation may help him synthesize and infer a good solution.
5. Cost may be reduced by simulating rather than by alternative forms of experimenting.
6. Simulation may also indicate which variables in a complex operation or system are important and how they are related to each other.
7. The amount of time accomplished is controllable by the simulator.

Simulation technique has been applied in the USA and the UK with reference to teacher education, teacher educators, training of principals and educational administrators. In India, it is still in its infancy.

In the year 1971 Prof. K.P. Pandey of the Himachal Pradesh University tried the first experiment in simulated teaching with B.Ed., in-service trainees enrolled for correspondence courses. The Teacher Education Department of NCERT and the Centre for Advanced Study in Education, M.S. University of Baroda have also done some work in 'simulated teaching' in

the context to teacher training.

Importance of Simulation

1. It helps to build confidence in the student-teacher.
2. It bridges the gulf between theory and practice.
3. It enables the learner to learn directly from experience.
4. It promotes a high level of critical thinking.
5. Its games develop in the students an understanding of the decision-making process.
6. It provides feedback to the learners on the consequences of actions and decisions made.
7. Its technique motivates students by making real-life situations exciting and interesting.
8. Role playing enables the individual to empathise with the real life situations.
9. Post-simulation analysis enables teachers and learners to assess the realism of the situation by uncovering misconceptions.

Limitations of Simulation

1. It is a misconception that adults can play the role of pupils.
2. During an exercise, the observer may record incorrectly.
3. Simulation attempts to portray real situations in a simple way is very difficult.
4. There is a tendency to use the results of a single simulation as the sole basis of generalization.

❖ *Role play*

Role playing is a teaching technique in which students assume an identity other than their own and play the role of others with whom the new identity has been assumed. The role played may be that of a teacher, a parent, a sales man, a manager, a banker and even inanimate things familiar in the course of interaction with the society. While playing such roles, participants of the role play exhibit behavioural patterns they believe are characteristics of those roles in specific social situations. For example two students might enact an interview, one taking the role of manager and the other of an interviewee. Through role playing the students get a vicarious experience.

Types of Role playing: There are two types of role playing. They are structured role playing and spontaneous role playing. In structured role playing the teacher selects the situations to be enacted in advance and specifies the

goals of the activity. Proper planning is required for this. In some cases written material which describes the role and situations is also presented in advance. Spontaneous role playing arises in the midst of a discussion.

SURVEYS AND MARKET STUDIES

Modern markets operate in a dynamic environment. Here a businessman always seeks information regarding the trends in the markets. In order to know the fluctuations in a market, he has to depend on market surveys. It refers to collection of data by interviewing a limited number of people selected from a large group. In this method, information is obtained by asking the questions to the selected respondents.

A commerce teacher can use the market survey as a method of teaching a complex concept or a process involving a variety of ideas. For example, a commerce teacher will have to help the pupils to develop deep understanding of the various aspects involved in the functioning of a market. Instead of presenting these ideas through theoretical exposition the pupils can be made to gather the ideas by conducting a market survey. This will make the information gathered practical oriented, functional, realistic and meaningful. The teacher should take initiative in guiding the students in conducting the surveys. Here the maxim concrete to abstract is followed.

How to conduct a market survey?

It is very significant on the part of a teacher to think about the stages of a market survey.

Stage 1 Identification of a complex problematic situation

In order to carry out the survey programme the teacher should discuss with the students an appropriate complex situation and convince them of the need for gathering information directly. It is better to divide the entire students of the class into different groups and assign specific tasks.

Stage 2 Planning the survey technique

After identifying the problem and specifying the tasks and objectives, the second step is to find out the best procedure for gathering information. Depending on the source of the information required tools should be selected.

Stage 3 Collection of data

After the determining the source of data the next step is the actual collection of

data. Proper planning in terms of time schedule etc has to be done under the leadership of the teacher.

Stage 4 Analysis and interpretation of data

The data should be tabulated and classified. Here statistical techniques can be used for analyzing the data. Students can arrive at generalization and conclusions on the basis of the results of such analysis.

Stage 5 Preparing the survey report

Based on the survey, each group is responsible to prepare a report. The teacher should evaluate the report.

SUMMARY

This unit provides a brief account of the need for the teaching method and its characteristics. Different types of methods of t teaching are explained, like lecture method, descriptive method, problem solving method, inductive and deductive method, case study etc., and each method is well explained with illustrations from the commerce and accountancy subjects

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KEY TERMS

- ❖ Lecture method
- ❖ Demonstration method
- ❖ Team teaching method
- ❖ Problem solving method
- ❖ Inductive and deductive method
- ❖ Project method
- ❖ Discussion method and its various forms
- ❖ Surveys and market studies

ANSWERS TO 'CHECK YOUR PROGRESS'

1. A lecturer must capture the learner's attention. Make use of stimulating audio visuals, demonstrations and provocative questions. Pose leading questions or problems at the beginning of the lecture to provide direction for the learners as to what is most important. This would also help to stimulate interest. Using a properly prepared outline for exposition will

avoid the tendency to read out the lecture, which might lead to monotony. This tension should be released and a receptive mood created before starting the actual talk. The appropriate use of humour is a wonderful means of Stimulation attention and imagination.

2. The Descriptive method is to use to develop the powers of observation and reasoning among the students, a commerce teacher can use this method very effectively. For example, distinction between departmental stores and multiple shops difference between promissory notes and bills of exchange, etc.,

3. The important definitions are, Gates, "a problem exists for an individual when he has a definite goal he cannot reach by the behaviour pattern which he already has available." According to Dewey, problem solving as, "Whenever-no matter how slight and common place in character-perplexes and challenges the mind so that it makes a belief at all uncertain there is a genuine problem. The problem fixes the end of thought and the end controls the process 'of thinking."

4. The various steps in the problem solving method are formation and appreciation of the Problem, collection of relevant data and information, organization of data, drawing of conclusions, and testing conclusions.

5. The inductive method makes the students arrive at general conclusions or establish laws through observation of particular and concrete them. The teacher is not teaching or explaining any rule here. They never forget the rule. If they discover, therefore it is the best method to introduce the rule in the class. It is the best method to introduce the new rule. In deductive method the learner proceeds from general rule to solve a particular problem. The pre-constructed formula or definition is told to the students and they are asked to solve or face the new situation with the help of that formula.

6. The two approaches, inductive and deductive are such good partners that the shortcoming of the one removed by the other. The modern teaching always starts with induction leads to deduction where the knowledge learnt is verified. The approaches inductive and deductive are aim at establishing the validity of the thought process.

Induction is to be the forerunner of predecessor of deductive. The deductive will give a good follow up for the understanding obtained earlier by induction.

QUESTIONS AND EXERCISES

1. Explain the merits and demerits of deductive and inductive approach in the teaching of commerce.
2. Explain clearly the use of case study approach in commerce teaching.
3. Elucidate the role of the commerce teacher in problem-solving method. Is it possible to use it in the teaching of every topic in Commerce? Explain.
4. What is simulated teaching? Make out a case of its introduction in the training of teachers. Do you think that the existing conditions in our training colleges/colleges of education permit its use? Give reasons in support of your view.
5. Explain the need of heuristic method in teaching commerce

LEARNING OUTCOMES

After End of this unit, one will be able to:
❖ Explain the lecture method and its advantages and disadvantages,
❖ Understand the lecture method how to make it effective,
❖ Explain the descriptive method,
❖ Understand about objective based method
❖ Explain demonstration method, lecture cum demonstration method;
❖ Study the importance of problem solving method and its need,
❖ Understand about discussion methods

5. 15 FURTHER READING

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UNIT VI EDUCATIONAL TECHNOLOGY

Structure

INTRODUCTION

Information Technology (IT) and computer networks are becoming an important part of the life. Rapidly developing virtual education and distant learning methods are replacing the classical methods of education. IT and Computers are widely used to expand teaching possibilities. As education is a complex process in which human and technical resources should be used very carefully, concepts related to teaching and learning has changed radically. The rapid growing visualization techniques are one of the significant developments in this area. Computer and related technologies are the widely used, effective and excellent visualization media and hence

these are widely used all over the world. As it can dramatically improve the learning performance of students as well as the teaching productivity and effectiveness of teachers, these are widely used in education. Commerce education is also not exempted for using the various benefits of technology. In this unit, we discussed about the educational technology and how it is more useful to the commerce and accountancy teaching.

LEARNING OBJECTIVES

After going through the unit, should be able to,

o Understand the meaning and uses of educational technology
o Study the various facilities available in the technology.
o Understand about programmed learning
o List out the types of Computer aided instruction and various software's available for commerce teaching.
o Point out the important uses of educational broadcasting and telecasting.

EDUCATIONAL TECHNOLOGY IN LEARNING COMMERCE AND ACCOUNTANCY

Educational Technology is concerned with the systematic application of science and technology in the field of education and this may be defined as a application of technology to education and thus may be defined as the application of technology to education in order to further the cause of the latter. Educational technology is not limited to use of audio visual aids and does not symbolize merely educational hardware such as the sophisticated gadgets and mechanical devices used in education. For the effective management of the total teaching learning process it tends to utilize the results of all good experiments and researches in the field of human learning and art of communication and employs a combination of all possible human and non human resources to achieve desired educational objectives.

In this way the term educational technology carries wide meaning. It can neither be confined to the use of audio visual aids, a software materials and

hardware equipments nor be limited to the use of psychological principles and instructional theories for bringing improvement in the process of teaching-learning. Being a science and technology of education, it should cover all that happens during the planning, implementation and evaluation of the teaching-learning process. It should devise ways and means to explore and utilize all the resources to bring improvement in the teaching-learning process. In brief, educational technology should stand for a wise application of the available human and non human resources for providing approaches solution to the educational problems and to improve the processes and products of education.

PROGRAMMED INSTRUCTION

The learning performed or instruction provided by a teaching machine or programmed textbook is referred to as programmed learning or instruction.Programmed learning is an arrangement of sequential experiences leading to proficiency in terms of stimulus - response (SR) relations.

Leith(1966): "Programme is a sequence of small steps of instructional material (called frames), most of which require a response to be made by completing a blank space in a sentence. To ensure that expected responses are given a system of cueing is applied and each response is verified by the provision of immediate knowledge of result. Such a sequence is intended to be worked at the learners own pace as individualized self instruction."

AkeBjerstedt (1972) has said that the term programmed learning can be used in two ways. In a narrow sense, it involves the composing of a series of tasks and their arrangement in what one believes to be an instructionally appropriate series following certain special principles. In the broad sense programming comprises, in addition to the above, comprehensive preparatory work aimed at, among other things the analysis of goals, students, and subject matter characteristics as well as comprehensive follow up with successive testing and revision of the first version.

Programmed learning has arrived on the educational scene mainly due to the laboratory experiments of Prof. B.F. Skinner. Skinner's theory of 'operant conditioning' became the basis for programmed learning technology.

There are three specific elements in this process;

- A stimulus which is initially present and which becomes the occasion for a response.
- A response which is entitled rather than elicited.
- A stimulus which follows the response and which increase the probability that the response will reach in future. This is known as SR and pronounced as reinforcing stimulus.

Programmed learning has adopted this procedure of operant conditioning and today established a form of technology of teaching.

Principles of programmed learning:

1. **Principle of Small Steps**. It is shown by experiments that even the dullest students can learn as effectively as the brightest students if the subject matter is presented to them in suitable small steps. When we dividethe task to be learnt into small steps, and ask the students to learn only one step at a time, then probably all the students will be able to learn one small step at a time and sequentially learn all the steps. It is a difficult task to climb the mountain very easily. This is known as the 'Principle of small steps".

2. **Principle of Active Responding.** The second psychological principle is that the students learn better and faster when they are actively participating in the teaching- learning process. In our classroom teaching the teachers do ask a few questions and all the students respond. But it is not possible for the teachers to ask all the students to respond at each small step. The programmed text contains a large number of questions

- one question at each small step and the students respond actively.

3. **Principle of Reinforcement:**

Every response even approximately correct must be reinforced immediately. Delayed reinforcement fails to work. This is possible only when a teacher has to teach only one student at a time. The most ideal situation is when the teacher can cater the needs of his students individually. But in classroom teaching this is hardly possible. No teacher, however efficient and sincere he may be, can reinforce each correct response of each of his students as soon as it is made in a classroom situation where he has to teach about 30 to 40 students.

4. **Principle of self – packing:**

The programmed instruction is based on the basic assumption that learning takes place effectively if the learner is allowed to learn at his own pace. Therefore, a good programme of the material always takes care of the

principle of self-packing. A learner moves from one frame to another according to his own speed of learning.

5. **Principle of Student- Evaluation or Student Testing:**

Continuous evaluation of the student and the learning process leads to better teaching- learning. In the programmed instruction, the learner has to leave the record of his responses because he is required to write a response for each frame on response sheet. This detailed record helps in revising the programme.

The following types of programmed instruction have emerged.

1. Linear or Extrinsic programming
2. Branching or Intrinsic Programming
3. Mathetics Programming.
4. Rules system of Programming.
5. Computer Assisted Instruction (CAS).
6. Learner Controlled Instruction (LCS)

The first three styles - linear, branching and mathetics are the basic formats. The rules system represents the deductive and inductive approach to teaching. The other two types, Computer Assisted Instruction (CAI) and Learner Controlled Instruction (LCI) are not the basis format of Programming. They are, in fact, the ways and means of providing instruction.

❖ *Linear programming*

B.F. Skinner is the originator of linear programming. It is also called a single track programme. According to Skinner, a creature, a bird or a human being can be led to a desired behaviour by means of a carefully constructed programme consisting of small steps leading logically through the subject-matter from topic to topic, provided each step is reinforced by some kind of favourable experience or reward. The increments in information which the learner is expected to absorb are small. The favourable experience or response increases the probability of the same response to occur again in the future. The process of rewarding the correct response to a stimulus increases the general tendency to give a response.

In a linear programme, leamer's responses are controlled externally by the programmer sitting at a distant place. Hence linear programming is also termed as extrinsic programming. In branching programming, learner's response is controlled by learner himself internally. It is, therefore, also

called intrinsic programming.

Merits of linear Programming

1. Immediate knowledge of results acts as a great motivator and releases anxiety and tension.
2. The smallness of the frames brings the sub-goals within the reach of the learner and thereby facilitates secondary reinforcement.
3. Repetition strengthens the response and ensures learning.
4. Easy nature of the programme provides 'success experience" to the learner.

Limitations of linear Programming:

1. In linear programming, the learning process becomes quite dull on account of the following reasons
(a) Subject matter is broken into very small pieces,
(b) Responding is quite mechanical and restrictive, and
(c) The learning process is quite slow.
2. The use of linear programmer is limited to some subjects and topics.
3. Linear programming cramps the imagination of the learner and initiative for creative, integrative and judgment learning.
4. Linear programming encourages guessing.
5. Linear programming does not develop the discriminating power of the students.

❖ *Branched programming*

Branching or intrinsic programming was developed by Norman A. Crowder (1954) an American technician. According to Crowder, branching or intrinsic programme is one which adapts to the needs of the learners without the medium of any extrinsic device such as a computer. It is not controlled extrinsically by the programmer. Norman A. Crowder was a technician who was working in the United States Air

Force. He was faced with the problem of efficiency of vocational training. His programme is based on intuition. His approach at the most is practical. This type of programme employs multiple choice response patterns. The learner is required to select one right answer out of several responses presented to him.

Merits of a Branching Programme

1. Big size of a frame as well as the branching minimizes unnecessary

repetitions and responding, thus reducing the amount of learning time and fatigue.

2. The pitfalls and consequences of erroneous logic are usually explained in the remedial frames so that the learner not only get the correct responses but also understands why some other response is not correct.

3. Instead of simple response it provides alternatives in the form of multiple choices.

4. Through its broad frames, branching programme provides more freedom to respond and scope of choosing one's own path of learning according to one's need. Thus it helps in maintaining interest and initiative of the teacher.

5. Branching programme is helpful in the development of power of discrimination of the learner.

6. Branching programme helps in the development of creativity and problem-solving ability.

7. Branching is most useful in the areas beyond facts, definitions and basic skills.

8. The frames being of a large size contain a good deal information and this may enable the programmer to enrich the style and expand his ideas.

Limitations of Branching Programme

1. The multiple choice questions provided in this program may lead to guess work on the part of the learner and he may understand the subject matter of the frame.

2. The setting of appropriate multiple choice questions suiting the entire material of the frames proves a difficult task.

3. No branching method can provide infinite branching to take care of all possible needs of every individual student.

4. The cost of branching programme is very high when compared with traditional teaching approaches.

5. The branching programme is not suitable for small child as they are unable to express symbolism.

6. The programme needs revision after every five years.

7. It is difficult to cover the entire subject matter of the curriculum in the stipulated time.

8. The diagnostic questions framed by the programmer may or may not suit the needs of the individual learner.

9. The programme cannot shape the behaviour of the learner

PERSONALISED SYSTEM OF INSTRUCTION (PSI)

The personalize system of instruction (PSI) owes its origin to Professor Fred S. Keller (1974) who along with some of his associates such as J.G. Sherman, put forward the idea of this new system of instruction in March 1963 and applied it initially in the teaching of new psychology programme in the University of Columbus. In the honour of its main inventor, the personalized system of instruction is also sometimes named as Keller Plan.

The personalized system of instruction as the name suggests stands for a system of instruction totally personalized or individualized. Here the person or individual who receives instruction is a key figure. He dominates the entire scene of the teaching- learning process. The decision on what should exist in a piece of instruction and how it is to carried out, is made according to the needs, interests and abilities of the person ,i.e, the individual learner in his own way by making him a central figure of the teaching - learning process.

Check your Progress

Notes: a) Write your answer in the space given below

b) Compare your answers with those given at the end of the unit

1. Write down the principles of programmed learning.

....
....

2. Explain the different types of programmed learning.

....
....

COMPUTER ASSISTED INSTRUCTION (CAI)

An instructional technique based on the two-way interaction of a learner and computer with the objective of human learning and retention is known as Computer Assisted Instruction. Here the computer actually assists the student in the learning process with the help of stored instructional programmes designed to serve a variety of purposes such as informing, guiding and testing the student until a prescribed level of proficiency is reached.

Merits of CAI:

- CAI can provide individualized instruction
- CAI can enhance the level of student performance
- CAI can easily convey the curricular material
- CAI can easily evaluate learning
- CAI can provide re-learning if required

Demerits of CAI:

- CAI fails to appreciate the emotion of students
- CAI programmes do not solve psychological or learning problems
- CAI cannot provide the student's with a value orientation

In short, it might result in dehumanization. Hence it has to be supplemented by direct contact with the teacher.

The Computer Assisted instruction may be used in the following major methods,

- ❖ **Drill and practice method**: It involves a computer programme, which leads the learner through a series of repeated experiences related to concepts, principles or processes with a view to develop skill in the particular area concerned. The computer shows patience and goes ahead with repeated exercises and waits with the skill is mastered. Drill and practice method is very effectively applicable for the subject accounting at the Higher Secondary level. It provides a variety of questions with varied formats. The learner is usually given several trials before the computer displays the correct answer. Items of different levels of difficulty will be made available within the same programme for drill and practice. Positive and negative feedback as well as reinforcement can be attempted in well designed programmes.

❖ **Tutorial method**: In this method, the computer acts as a teacher. All interactions are between the computer and the learner. Computer suggests instructional and learning activities, which help the leaner to gather in depth information and clear their doubts. In commerce education, one can prepare tutorial programming packages especially for the subject accounting. It would be very effective for giving instruction. Practice and feedback based on the response of the learner to questions or activities called for in the computer programme being used for learning. In this method the pattern followed is basically that of branched programming in which information is presented in small units followed by a question each. The student's response is analyzed by the computer and appropriate feedback is given. A complicated network of pathways or branches can be programmed. The more alternatives available to the computer, the more adaptive tutorial based on individual differences can be provided.

❖ **Gaming method**: ET instructional strategy that uses computerized educational games for the purpose learning is known as gaming method. It provides a playful environment in which the learner follows prescribed rules as they strive to attain a challenging goal. It is a highly motivating method especially for the subjects Management and Accounting at the Higher Secondary level. The game may involve one leaner or a group of learners. Gaming often requires learners to use problem solving skills or to demonstrate mastery of specific content demanding a high degree of accuracy and efficiency. A common type of instructional game, which we can practice in a Commerce class, is a business game. Participants will consist of management teams to make decisions regarding the dealings of an imaginary business firm and the winning team is one who is making the right decisions.

❖ **Simulation method**: Simulation as a method of instruction using for teaching to the student for easy understanding. As a method under CAI it allows the learners to confront with a real life situation through a simulated computer programme. It allows realistic practice without facing any risk as experienced in a real situation.

❖ **Discovery method**: Discovery is a general term to describe activities using an inductive approach to learning. Here the computer presents problems that the student solves through trial and error or by adopting systematic approaches. In the discovery method in CAI, the learner employs an 'information retrieval' strategy to get information from a database. For example, if a Commerce student wants to compare the same type of

products produced by different companies, he can select from a set of critical product features, display them on the computers and draw conclusions about the comparative qualities of the products.

❖ *Problem solving method:* In problem solving the learner uses previously mastered skills to solve a challenging problem. The student must examine the information presented, clearly define the problem, examine it and generate a solution. The computer may present the problem. It can manipulate the data at student's command, maintain a database and also provide feedback when needed.

TELE CONFERENCING

Educational broadcasting is one of the important landmarks in the history of mankind. It revolutionized the thinking and life style of man. Potentials of this technology can be effectively utilized for education also. Listening to broadcasts will arouse the interest of pupils and will create a desire to acquire more knowledge and to develop skills.

Educational broadcasts potentially have a great coverage. It can be received any where either in the house or in the school or even while travelling. It is very much suitable for supportive type of learning. It has the capacity of stimulating imaginative involvement of listeners.

Interactive video is an interactive group communication or a real time interaction between two or more people in two or more locations through an electronic medium. It makes possible conferencing among the participants even remaining at a large distances from each other. On account of the use of a sophisticated electronic medium for communication, teleconferencing may bring people together under one roof even though they are separated by thousands of miles for the exchange of information and opinion.

VIDEO CONFERENCING

In video conferencing, the resource persons at the teaching end may use mainly television cameras to show demonstrations, activities, discussions, etc. (television based video conferencing) or may transmit the visuals generated through computer (computer based video conferencing). In reality, videoconferences of the television kind may also include

computers for display of power-point slides, graphics, etc.

Similarly, computer based teleconferences may contain video cameras (or, more commonly, 'web cameras', which are low resolution versions of video cameras) to enable multi-media exchange. The groups located at the learner ends can see as well as listen to the resource persons through video monitors.

Interactivity between the learners/participants and the resource persons may happen through audio only (one-way video and two-way audio conferencing) or the same facilities as available at the teaching end may also be used at the learner centers for exchanging both visual and audio information among all the participating locations (two-way video conferencing).

One-Way Video and Two-Way Audio Conferencing

Among the different forms of video conferencing, it is the television based one-way video and two-way audio conferencing, which is commonly used in the context of education and training. It consists of three major elements:

❖ Teaching End
❖ User End/Learner Centres
❖ Telecommunication Links

Teaching End : This can be a room or a studio from which the resource person conducts a live lesson to the learners/participants through audio-visual means. In the simplest case, a single video camera faces the resource person, while a microphone picks up his/her voice.

In more sophisticated systems, the teaching-end resembles a broadcast TV studio, with a multi camera setup for different uses such as showing graphics, etc. Other equipments used are videocassette recorders (VCRs), computers and other video sources.

Learner Centres : Display of video at the learner centres is arranged through a television set/video monitor of sufficient size for the viewing comfort of the learners as a group. If the group were too big, a projection TV system on a wide screen would be preferable. Audio can be listened to either through in-built speakers of the TV monitors or external speakers.

It may also be necessary to provide for a back-up power source (i.e. generator or inverter) particularly when the power supply is erratic.

For purposes of interaction, provision is made at the learner centres for calling in the teaching end through normal telephone lines, fax and e-mail.

Telecommunication Links : The communication links to interconnect the

teaching end and learner centers can take a variety of forms. Since both motion videos as well as audio signals need to be transmitted on the outbound path (that is, from the teaching end to learner centres), this channel needs to be a broadband one for better quality of sound and visual.

Two-Way Video Conferencing

While the one-way video and two-way audio conferencing systems are instances of point-to-multipoint communication, two-way video conferencing systems are generally instances of multipoint-to-multipoint communications with facilities for exchanging visual as well as aural information among all the participating locations.

Different conferencing systems under this category are:

❖ Roll-about Video Conferencing.
❖ Point-to-point Video Conferencing.
❖ Multipoint Video Conferencing

Check your Progress

Notes: a) Write your answer in the space given below
          b) Compare your answers with those given at the end of the unit
3. What is Computer Assisted Instruction?
....
....
4.What is tele conferencing?
....
....

INTERACTIVE WHITE BOARD

An interactive whiteboard is an instructional tool that allows computer images to be displayed onto a board using a digital projector. The instructor can then manipulate the elements on the board by using his finger as a mouse, directly on the screen. Items can be dragged, clicked and copied and the lecturer can handwrite notes, which can be transformed into text and saved.

They are a powerful tool in the classroom adding interactivity and collaboration, allowing the integration of media content into the lecture and supporting collaborative learning. Used innovatively they create a wide range of learning opportunities. However, in many environments they are not being used to their full potential, and in many cases acting as glorified blackboards.

This type of whiteboard is now commonplace in schools in the UK, but universities have been slower to adopt this technology. They were originally developed for use in business to demonstrate concepts and record meetings. However, they are an extremely flexible tool which can be used with both the youngest primary school children and university graduates.

An interactive whiteboard can be a cost saver as this technology demonstrates how one computer can provide learning stimuli for a whole classroom. This is more cost effective than equipping an entire IT room, or every student with a laptop.

Examples of the features available when using an interactive whiteboard:

- Add annotations
- Highlight text
- Add notes and drawings and then save them to be printed out and shared, or added to a virtual learning environment.
- Show pictures and educational videos to the whole lecture theatre. You can label parts or highlight elements of an image.
- Demonstrate the content available on a website in a teacher-directed activity

Interactive whiteboards as a pedagogical tool

This type of tool promotes creative teaching and motivates students into

absorbing information.

Teaching with an interactive whiteboard allows lecturers to accommodate all different learning styles:

- Tactile learners get to touch and move things around the board. They can also make notes and highlight elements.
- Visual learners benefit from a clear view of what is happening on the board.
- Audio learners can participate in a class discussion.

SMART CLASS ROOM

Smart classrooms are the classrooms enhanced with technological equipments for the purpose of better learning and teaching.

Based on the equipments available smart classrooms can be categorized as follows:

- Basic smart classes: The classrooms with basic smart technology include gadgets like laptops or computers, projector, DVD or VCD player and a viewing screen etc.
- Intermediate smart classes: The intermediate smart classrooms are one step ahead of the basic technology smart classrooms. They include gadgets like a smart podium with control panel in addition to laptop, projector, screen and DVD or VCD player etc.
- Advanced smart classes: The advanced smart classrooms have all the gadgets of a basic or intermediate smart classroom but their features are very advanced, that is, they use the newest technology.

Equipments installed in a Smart Classroom

The equipments installed in most of the smart classrooms are:

Computer or laptop: A computer or laptop is a basic and necessary requirement of a smart classroom. Instead of writing on board with a chalk or marker, teaching process is done by presentation or images or multimedia in a smart class room.

Projector: it is an optical device. It projects stationery or moving objects onto a screen. They create an image by shining light through a transparent less or by a laser.

Screen: It is a surface used to display the images projected by a projector. The screens may be rigid wall mounted screens, pull down screens, fixed frame screens, electrical screens, switchable projection screens, or mobile screens.

Microphone: it is generally called as mic or mike. It is a device which converts audio signals into electrical signals. These signals are then transmitted, amplified or recorded. Amplifier and speaker: These are the electronic devices which are used to increase the volume of a sound.

Podiums: it is a platform usually made of wood which raises the person standing on it so that he becomes visual to all the audience.

Document camera: They are also called as visual presenters, visualizers, digital overheads or docucams. They are used for displaying an object to a large audience. A document camera magnifies and projects the images of a two dimensional as well as a three dimensional object. The object is simply placed under the document camera. The camera takes its image and produces its live image by using a projector.

Smart Podiums: They are also called smart boards or smart LCDs. It is an interactive pen display which can be connected to the computer or laptop externally via the USB port or RGB ports. It can be called as an external monitor with the facility of digital inking. With a smart podium, we can open documents, presentations, multimedia files and can write on them with a digital pen.

DVD or VCD player: There are a large amount of videos available on the internet but still there is a requirement of VCD or DVD player because there are some videos which have copyright and have to be purchased. These are often in the form of DVDs or CDs. Overhead projector: It is a device which is used to display enlarged images of a transparent acetate sheet placed on its base on a screen. This device was very famous a few years back, but now it is being replaced by computer based projectors.

Advantages of Classroom

Access to online resources: In a smart classroom, the teacher can use the resources available on the internet for the better understanding of the students. For every subject, there are numerous resources available on the internet which can be accessed by the teachers as well as the students at any time in a smart classroom. Internet plays a major role in learning process. Students gain extra knowledge about the ongoing topic in the class. This is a limitation of books. The books print only the syllabus. For

those who want to learn beyond the syllabus internet is very useful tool. Even for the syllabus, the resources available on the internet are very helpful.

Digital medium for notes: In a regular classroom, the teacher writes on the board and the students note it down on their notebooks. In this methodology of teaching, the student's mind gets diverted in two directions, one is listening to the teacher and understanding and the other is writing or making notes for future reference. In this way, the students do not understand the topic properly or gets confused or even sometimes, they do not listen anything and just make notes. This is a very dull approach in teaching process. But this is not the case in a smart classroom. In a smart classroom, there is a digital approach for notes. The teacher, instead of writing on the board, teaches using PowerPoint presentation, word documents, images, videos, and audios. These resources are given to the students in pen drives, CDs, or they are emailed to them. In this way, the students do not have to write for making notes. Notes are provided to them and they can devote their full concentration to the lecture.

Advantageous for the absentees: If student who studies in a regular classroom is absent for one day, it becomes difficult for him to gather all the notes of the classes he missed. Also, it becomes difficult for the teacher to explain the previous topics to the students who were absent. The students then take a shortcut method and get the notes photocopied from other students. In this way, the students do not understand anything from the classes he missed. In a smart classroom, the lectures are recorded. Whenever a student is absent he can anytime see the recorded lecture. These recorded lectures are also uploaded on the internet which can be accessed by the students anytime by a login id and password. The notes are also in digital form, so they can be easily provided to the student.

Ease of understanding: There are many topics in the curriculum which are very difficult to understand. They cannot be just taught by using a chalk and a black blackboard. They require an interactive teaching approach. With smart classes, the teacher can use multimedia to teach that topic to the students. The students learn more from what they see rather than from what they listen. So the students understand easily and effectively all the difficult topics in a smart classroom.

Makes learning enjoyable: If we go and look in a regular classroom, the students

are feeling very sleepy. Some of the students are not even listening to the teacher. They are busy talking with their friends. In short, the class becomes very boring for them. But it is not so in a smart classroom. The use of smart technology in the class makes the classroom a fun room. The class becomes interesting and enjoyable for the students. No student feels sleepy. It makes learning a fun process. The students who do not like to go to schools also starts enjoying in the school.

Improves the academic performance: It is often seen that the students studying in a smart class get a better result than the students studying in a regular class. This is so because the understanding ability in the students studying in a smart classroom is way more than other students. The use of technology in the classroom for teaching increases the understanding of the students. The topic becomes clearer and the base of the subject becomes stronger. Obviously, the students with better hold of the subject and with strong basic knowledge of the subject will score more in exams.

Communication: The technology used in a smart classroom makes video conferencing possible in the classroom itself. In this way, the students can communicate with the person who is expert in the subject. In various schools and colleges with the facility of smart classrooms, guest lectures are organized weekly in which the students can communicate with the experts such as professors of IITs and IIMs or the people engaged in research work. This provides the students with extra information about their subjects which beyond the scope of the text books. The students get to know about the ongoing issues related to their subjects. They get acquainted with the upcoming technology and theories. This proves very beneficial for them in the near future.

Health friendly: There are some teachers who are very sensitive towards the use of chalk or markers. Some of them experience skin allergies when they write with chalk and some are allergic to the chalk dust. Some teachers are not comfortable with the smell of the ink used in the markers. For these teachers smart classrooms are advantageous. There is no or very less use of markers or chalk in a smart classroom. The teaching is done by using digital or e-resources. So, there is no chance of allergy.

Disadvantages of Smart Classrooms:

With so many advantages of the smart classrooms, there are a few disadvantages also which makes the use of smart technology quite limited. They are:

Cost: The technology used in the smart classrooms is very expensive. All the

schools cannot afford it. Even the schools which can afford it get over the budget after buying it. Some schools often take loans to buy the smart technology. Consequently, the fees of the schools are increased to meet the cost of the equipments. The admission fees of the schools with smart classrooms also hikes. All parents cannot afford such expensive education for their children. Every child cannot get access to the smart classrooms.

Skilled faculty: All teachers cannot use smart technology for teaching. The teachers have to be trained before they can they can start teaching in a smart classroom. The teachers are trained to use the technology in an effective manner. They are also trained to handle faults in the gadgets. This training also costs much. If the teachers are not properly trained the technology would become a disturbing factor rather than becoming helpful. *Maintenance*: Like all electronic gadgets, the gadgets used in smart classrooms require proper maintenance. The rooms in which these gadgets are installed should be free from dust particles and should not face direct sunlight otherwise the gadgets will become faulty. Also these equipments release a lot of heat in the surrounding so the rooms should be air conditioned. Technical staff has to be appointed for the maintenance of devices. This further adds to the cost. The devices also need to be updated regularly which is a very time consuming process.

Technical faults: All the electronic devices are prone to faults. If the equipments do not work one day, the day is considered as a waste. They require a lot of time to come back to their proper functioning state. No teaching can be done on that day. In this case the teacher should always be ready for an alternative methodology for teaching that is, using the blackboard. But this would be very dull experience for the teachers as well as the students who are regularly participating in smart classrooms. The workload of the teachers is also increased as they have to prepare the topic as per two different methodologies of teaching.

USING WEB RESOURCES

Technological change, which not only permits new activities but makes those new activities superior in many important ways over the previous method of operation, creates long lasting innovations in society. Web-based education is one of those innovations. Why is the remarkably fast growing innovation of web-based education important to our world? Firstly, it is radically growing in the first world nations of the world, especially in the

United States. This alone means that it will likely grow in other nations in the world, as this innovation dominates education at all levels.

Secondly, teachers at all levels can merely post their syllabi on Blackboard but some have radically changed their whole method of teaching so that the class venue for the teacher and the student becomes the computer. The classroom now is a "virtual learning environment." Learning is no longer bound by space and time. To use a metaphor associated with the past, the traditional classroom has become the expensive and difficult to handle as the rolled parchment manuscript when the printing press innovation was implemented. Web-based education has become the cheaper and superior printed book of the modern era.

There are seven important functionalities in web-based education:

(1)   real time announcements,
(2)   posting of text, html, spreadsheets, videos, PowerPoint, audio files,
(3)   real time grade book,
(4)   external links,
(5)   discussion board and chat rooms,
(6)   automated quizzes, and
(7)   e mails to individuals and list serves.

For the student, the announcements are on the opening page of the course. The announcements allow the teacher to give the students needed information items, as the course evolves during the semester. The student can view all the announcements or only the most recent as he or she wishes. This is very useful as the announcements are available immediately to the student as the teacher makes the posting. In addition, the teacher has a record of when the announcement was posted and modified. This leaves the student without the traditional classroom argument that "I did not hear the announcement."

Most new users of online or web-based education use the announcements and the functionality of posting materials. Teachers find that posting their one or more page syllabus useful because the students have it easily available and can print it when they wish or as often as they wish. However, few teachers really take advantage of this functionality. External links provide the student with Internet sources that are particularly important and useful from the teacher's point of view. The e-mail function is very handy as it allows the teacher and student to easily communicate with each other or with the whole class as a group using a list-serve. In addition, there is a

drop box capacity, which allows the student and teacher to send files and easily keep track of what was sent and when. This is especially useful for students submitting assignments or faculty returning assignments with their comments.

For the more advanced users, the teacher can use automated quizzes. If the test is objective or uses "fill in the blank" but not subjective questions, the teacher can post the quizzes on the Internet and have the computer grade it automatically. The student goes to the quiz, enters the password for the quiz, and takes either a timed or non-timed quiz. When finished and submitted, the computer tells the students which answers were incorrect, provides teacher feedback on each question, and enters the score in the grade book. The teacher has the option of allowing the student to retake the exam or not. If security is a concern, the teacher can ask the students to take the online quiz in a controlled computer lab environment in which IDs would be checked and students would not have access to any other materials. The teacher can also configure quizzes to have the computer randomly selects questions from a large question pool, which also helps discourage cheating.

The more advanced users of web-based education should integrate the functionalities of Blackboard based on the teacher's course objective and the teacher's judgment on how to best present the material to the students. First, the teacher needs to place on the web site all course material including syllabus, external links, reading materials except the required books, lectures, full instructions on all aspects of the class, quizzes / tests, videos and audio files, and so on. Secondly, the teacher must consider how to us the quizzes to maximize the learning experience. Thirdly, the teacher should consider how to use the discussion board to maximize the learning experience by reinforcing the text assignments and lectures using in-depth dialogue among the students. For example, the teacher can select six topics that can benefit from group interaction and thought. The teacher places the forum topics on the discussion board and might even break down each topic into sub-topics called "threads."

The quality of the web-based discussion is much better than normal classroom discussion because the students have an opportunity to present more thoughtful comments. In web-based discussions over a period of one week, introverted students tend to be more active for several reasons. Any speech or social handicap is not apparent and feelings of inadequacy are less likely to inhibit their performance. They have more time to develop their

thoughts, adjust them in the context of what is being said, correct them, and then submit them at their pace of thought. They do not have to compete emotionally with extroverts, who tend to dominate the relatively short classroom time. Students do the normal mid-term, final, and term paper. At least, the mid-term and possibly the final should be a comprehensive take home tests that requires integrative thought and should be submitted via the "drop box." Students should also submit the term paper via the drop box.

An advantage of this approach is that the student learns a valuable new computer skill. One problem with term papers is that students sometimes cheat by paying someone else to write their paper and catching this type of cheating is almost impossible. Another advantage of students preparing a Producer file is that their cheating is made more difficult because they must appear in the Producer file videos. Unfortunately, student cheating can occur in other ways in both traditional and web-based education. Web-based education means that time and place are no longer barriers. Any student who can get to a computer can take a web-based class and get an education at least equal to the one offered at a traditional course. Another implication of web-based education is the possibility of sharing top talent in teaching public administration. For example, a well recognized expert can prepare a given course and students in all parts of the state or world can take that course.

BARRIERS TO WEB-BASED EDUCATION

In education, the resistance of faculty and the reluctance of higher educational administrators to adapt to this new approach will retard the advancement of web-based education. As noted before, new teachers resist this approach because they do not have a secure position. They realize that the full use of this approach to teaching requires them to record their teaching and the development of this type of course requires a great deal more effort and organization on their part.

In addition, preparation is more complex. In traditional teaching, the teacher only needs a syllabus, an extensive set of notes, some tests, and some plan to present the material to the students. In web-based teaching, the teacher needs the same as the traditional class; but he or she also needs a complete set of PowerPoint slides that cover the teaching notes, videos of him or her lecturing each PowerPoint presentation, a very large set of objective quizzes with feedback comments on right and wrong answers, and a set of

forums for the discussion board. Because the course preparation time is often double that of the traditional class, there is less time available to publish in spite of the fact that publishing expectations are not lowered. Thus, web-based education increases the new teacher's risk of perishing in their "publish or perish" world.

Administrators will find web-based education a challenge because the need for technical support and equipment is critical and the whole structure of the academic department will change. In traditional education, the academic department need only ask the library to order books, the facilities people to find classrooms, and secretaries to help faculty type papers and so on. In web-based education, the academic department needs to do all the same things but it must also hire course tutors as adjuncts or instructors to work with senior teachers.

USING SOCIAL MEDIA IN LEARNING COMMERCE AND ACCOUNTANCY

Social networking has become one of the most important communication tools among people nowadays. However, social networks exist on the Internet websites where millions of people share interests on certain disciplines, and make available to members

of these networks various shared files and photos and videos, create blogs and send

messages, and conduct real-time conversations. These networks are described as social, because they allow communication with friends and colleagues study and strengthen the ties between members of these networks in the space of the Internet. The most famous in the world of social networks are Facebook (Facebook.com) and Twitter (Twitter.com) and MySpace (myspace.com) and others. Electronic social-networking services such as MySpace and especially Facebook have rapidly earned fame. The model of the web as a decentralized search engine to search information or communicate with others is becoming obsolete.

On the whole, one of the biggest assets of each social media tool lies in bringing together the students of all ages to help them with all types of assignments, starting with the homework and finishing with different researches. It is worth mentioning that such phenomenon as geo-tagging has a great future perspective in education life, owing

to the fact that it can be used to target and find necessary data about the places that are being studied. In addition, it has been scientifically proven that social media can assist the students in solving their engagement crisis. Indeed, the lack of engagement has become the main reason for students' expulsion both from the course and college. In this case, social media engages them into close communication and collaboration with their instructors so that the studying process is properly maintained.

EMERGING INSTRUCTIONAL TECHNOLOGIES: TELECONFERENCING

The term teleconferencing refers to electronic meetings that involve people who are at physically different sites. Telecommunication technology system allows meeting participants to interact with one another without travelling to the same location. Teleconferencing is an important form of electronic meeting systems. Sessions are held in real time, with major participants being televised while participants at remote sites usually take part with voice input of questions and responses. Teleconference in simple words is a meeting between one individual with many people through telephone or network connection located in same city or in different cities, states and countries. It is a real time exchange of information between people. People can conduct meetings, training, demonstration, data transfer etc.

Educational teleconferencing is a valuable medium for distance education. It involves the use of several media and permits interactive group communication by means of a two-way broadcast. Today, dependence on this technology is accelerating. The interest in using audio and related visual data that can be transmitted over regular telephone lines appears to be related to the growth of distance education. Teleconferencing can also consist of using closed-circuit television to reach large groups at multiple sites. Several major communication carriers and hotel chains now offer teleconferencing services for such events as sales meetings, new product announcements and employee education and training. Three different types of teleconferencing exist: audio teleconferencing, video teleconferencing and computer conferencing.

Audio Conferencing

Audio conferencing is the use of voice communication equipments to establish an audio link between geographically dispersed persons, one that

allows them to conduct a conference. The conference call was the first form of audit conferencing and is still in use. Some firms install more elaborate systems consisting of private, high-quality audio communications circuits that can be activated with the flip of a switch. Audio conferencing does not require a computer. It only requires a two-way audio communications facility. Audio conferencing is best suited for firms that are spread over a wide area. Since it is a form of synchronous communication that requires all participants to be present at the same time, it is difficult to schedule conferences when time zones are far apart.

Video Conferencing

Video conferencing is the use of television equipment to link geographically dispersed conference participants. The equipment provides both sound and picture. Like audio conferencing, video conferencing also does not necessarily require a computer. With video conferencing, participants can see and hear each other. Generally, participants gather in relatively expensive, specially equipped rooms that can handle the complexities of simultaneous video and audio transmission. There are three possible video conferencing configurations.

***One-Way Video and Audio*:** Video and audio signals are sent from a single transmitting site to one or more receiving sites. This is a good way for a project leader to disseminate information to team members at remote locations.

***One-Way Video and Two-Way Audio*:** People at the receiving sites can talk to people at the transmitting site, while everyone views the same video images.

***Two-Way Video and Audio*:** The video and audio communications between all sites are two-way. Although this is the most effective of the electronically aided conferencing approaches, it can be the most expensive as well.

Computer Conferencing

A third form of electronic conferencing is computer conferencing. There is a fine line between this system and Email. Both use the same software and hardware. Two factors determine this application, which uses the system and the subject matter. E-mail is available to anyone who has access to the network and that includes practically everyone in the office. Also, the E-mail system can be used for any purpose. Computer conferencing, on the other hand, is the use of a networked

Advantages of Teleconferencing

The support for teleconference was mainly due to the consideration of the

following advantages:

- Effective support for remote learners: teleconferencing can be very useful when most of the potential students are widely scattered among communities that are far apart and when each center has a thin learner population, say less than ten students, in a given course or programme.
- Cost effectiveness: The cost for starting and operating teleconferencing system is relatively low in comparison with other available methods of serving remote learners.
- Flexible system: The system used can be adjusted quickly to serve large or small groups.
- Familiar instructional mode: The mode of instruction is similar to that of the seminar with the instructor being in charge of the discussion and able to stimulate multi-location interaction.
- Easy scheduling adjustments: A scheduling adjustment can be made almost as readily as for the on-campus class rooms.
- Multi-locational access-control: Access to the instruction in the programme can be controlled through a limited number of off-campus centers.
- High-quality instruction: The quality of instructional materials can be kept high because of the need for careful and early preparation.
- Immediate feedback: The teleconferencing system provides the facility for immediate feedback to the learners and allows them to convey their reactions to the tutors.

Limitations of Teleconferencing

Teleconferencing has certain inherent limitations, due to which it is not in frequent use in education. Some of these are as follows:

Teleconferencing requires a huge and very efficient telephonic, radio and television net work throughout the country.

- The chances of technical break down are quite high.
- The telephone charges are very high, which all the educational institutions cannot afford.
- Teleconferencing is a costly technique of instruction. It requires sophisticated technology and expert human power.
- Teleconferencing is a mode of group communication, so the willingness of each participant is an essential requirement, but this is generally lacking especially among distance learners.
- It takes time to organize.

BLENDED LEARNING

Blended learning combines physical and online learning experiences that give students more control over the time, place, path and pace of instruction. What's exciting about blended learning is that it provides traditional classroom experiences as well as online tools and learning opportunities. It's not an all-or-nothing method. Still, technology is a key component of blended learning as it is for students in the real world. The flexibility of blended learning enables students to have more control over their learning methods - perhaps they will watch online lectures at home and engage in peer groups for collaborative activities or they will prefer to join lecture-based virtual classes and do their home work independently. Currently, no universal definition exists for blended learning. Most agree that it involves some combination of online and face to face instruction. Blended learning does not occur simply by adding a few online strategies to a traditional classroom. Successful blended learning requires an intentional and integrated approach. The blend of methods should depend upon the needs of the students and the school.

Teachers may combine physical classroom learning activities with online learning components. Using a blended approach as a course design enhances students' teaching and learning experiences. In many cases, the act of blending may bring better experiences and outcomes for a student and more efficient teaching and course management practices for a teacher. It can involve a mix of delivery modes, teaching approaches and learning styles. Advances in technology provide new opportunities for blended learning forms for the students in diverse environments. Also, blended teaching allows designing and delivery of courses to enhance the teachers' role.

Implement of Blended Learning

1. Blended learning allows teachers and schools to address a variety of learning styles with a variation of instructional methods.
2. Blended learning practices in the K-12 environment increase student motivation.
3. Blended learning allows for more personalized instruction.
4. Blended learning provides opportunities for teachers to use online curriculum for basic information and for extensions/review and class time for higher order thinking activities.
5. Blended learning frequently provides a higher level of interaction than commonly experienced in face-to-face courses.

Six Models of Integration

1. Face-to-face Teacher Lead: Teacher lead course in a face to face environment with supplemental online resources
2. Flex: Most of the content is online with tutoring in a face-to-face classroom
3. Rotation: Students rotate between face to face and online within the same course.
4. Self-blend: Students are online after hours on their own initiative
5. Online driver: The content is online and the student proceeds at own pace and meet face to face occasionally with teacher and other Students
6. Online lab: Students in computer lab with mentor during school day and teacher is online.

FLIPPED CLASS ROOM
1. A means to increase teacher contact time
2. An environment that increases student responsibility
3. Blending of direct instruction and constructivist learning
4. A class where all students are engaged
5. A class where absent students won't fall behind

Key Elements of Flipped Classroom
- Provide an opportunity for students to gain first exposure prior to class.
- Provide an incentive for students to prepare for class. Task associated with points.
- Provide a mechanism to assess student understanding.
- Provide in-class activities that focus on higher level cognitive activities.

Four Pillars of F-L-I-P
1. Flexible Environment
2. Learning Culture
3. Intentional Content
4. Professional Educator

Flexible Environment
Educators can create flexible spaces in which students choose when and where they learn. Furthermore, educators who flip their classes are flexible in their expectations of student time lines for learning and in their assessments of student learning.

Learning Culture
The flipped learning model deliberately shifts instruction to a learner-cantered approach where class time is dedicated to exploring topics in greater depth and creating rich learning opportunities. Students are actively involved in knowledge construction as they participate in and evaluate their learning in

a manner that is personally meaningful.

Intentional Content

Educators continually think about how they can use the Flipped Learning model to help students develop conceptual understanding and procedural fluency. Educators use intentional content to maximize class time in order to adopt methods of student-cantered, active learning strategies.

Professional Educator

Professional educators continually observe their students, providing them with feedback relevant in the moment and assessing their work. Professional educators are reflective in their practice, connect with each other to improve their instruction, accept constructive criticism and tolerate controlled chaos in their classrooms.

Roles and Responsibilities of Students and Teacher

Teacher and students engaged in…

- Concept exploration
- Making meaning of content
- Students take responsibility for their own learning Teacher acts as Coach/Mentor/Guide
- Teacher helps students Access Information
- Process information
- Develop critical thinking skills needed to problem solving
- Teacher will help students to set and monitor goals

LEARNING MANAGEMENT SYSTEM (LMS)

LMS are a type of software designed to deliver, track and manage training and education. These systems have been called Course Management Systems, Virtual Learning Environments, Collaborative Learning Environments and a host of other monikers. Several advancements in the field of technology have occurred, making several aspects of our lives more easily managed and completed through computer and online-based technologies. In schools and universities now offer students learning, examination, communication with the students and assignment submission options through web-based applications.

While some of those methods have had noticeable positive impact on student engagement and performance, others proved less effective and in some cases even harmful. Therefore, academic experts and senior school policy makers stand along the sidelines over the use of technology-based instruction and learning. The software is similar in functionality, despite its name and typically includes methods to manage users, role and course

information, online communication, grading and web-based or blended delivery of content.

Learning Management Systems perform learner registration, track learner progress, record test scores, and indicate course completions and finally allow instructor to assess the performance of their learners. LMS must be able to centralize and automate administration, use self-service and self-guided services, assemble and deliver learning content rapidly, consolidate training initiatives on a scalable web-based platform, support portability and standards, personalize content and enable knowledge reuse.

MOODLE - Modular Object Oriented Dynamic Learning Environment

MOODLE is the short name for Modular Object Oriented Dynamic Learning Environment. MOODLE is a learning management system in some literature; it is called a virtual learning environment. MOODLE is an application program that can transform learning media into web forms. The benefits of the use of the LMS uses MOODLE as online is very important, there are resolve the limitations of which are frequency face to face in the class. In general, it is considered as a freeware, which means that it is relatively free to use.

MOODLE is a learning platform designed to provide educators, administrators and learners with a single robust, secure and integrated system to create personalized learning environments. MOODLE is a free and open-source learning management system written in PHP and distributed under the GNU General Public License. MOODLE is used for blended learning, distance education, flipped classroom and other online learning projects in schools, universities, workplaces and other sectors. MOODLE is used to create custom websites with online courses and allows for community-sourced plugins.

MOODLE is provided free of charge (under the GNU Public License) as open source software. Even though it has copy right, MOODLE is still given the freedom to copy, use and modifying. MOODLE can direct work without modification on UNIX, Linux, Windows and Mac. MOODLE becomes one of the ways to improve the effectiveness of learning. By using MOODLE, students can conduct learning activities online. With MOODLE, students are given the freedom to be able to access various learning materials, interact with their teachers and friends, so that did not make static learning. MOODLE has several features that can support online learning activities. Several activities of learning that are supported by MOODLE are (1) Video, (2) Discussion forums, (3) Chat, (4) Materials

and (5) Quiz.

What are the benefits of MOODLE of LMS?

Proven and trusted worldwide

Powering [hundreds of thousands of learning environments globally](#), MOODLE is trusted by institutions and organizations large and small, including Shell, London School of Economics, State University of New York, Microsoft and the Open University. MOODLE's worldwide numbers of more than [213 million users](#) across both academic and enterprise level usage makes it the world's most widely used learning platform.

Designed to support both teaching and learning

With over 10 years of development guided by [social constructionist pedagogy](#), MOODLE delivers a powerful set of learner-centric tools and collaborative learning environments that empower both teaching and learning.

Easy to use

A simple interface, drag-and-drop features, and [well-documented resources](#) along with ongoing usability improvements make MOODLE easy to learn and use.

Free with no licensing fees

MOODLE is provided freely as [Open Source](#) software, under the [GNU General Public License](#). Anyone can adapt, extend or modify MOODLE for both commercial and non-commercial projects without any licensing fees and benefit from the cost-efficiencies, flexibility and other advantages of using MOODLE.

Always up-to-date

The MOODLE project's open-source approach means that MOODLE is continually being reviewed and improved on to suit the current and evolving needs of its users.

MOODLE in your language

MOODLE's [multilingual](#) capabilities ensure there are no linguistic limitations to learning online. The MOODLE community has begun [translating](#) MOODLE into more than 120 languages so that the users can easily localize their MOODLE site, along with plenty of resources, support and [community discussions](#) available in various languages.

All-in-one learning platform

MOODLE provides the most flexible tool-set to support both blended learning and 100% online courses. Configure MOODLE by [enabling or disabling](#)

[core features](#), and easily integrate everything needed for a course using its complete range of built-in features, including external collaborative tools such as [forums](#), [wikis](#), [chats](#) and [blogs](#).

Highly flexible and fully customized

Because it is open-source, MOODLE can be customized in any way and tailored to individual needs. Its modular set up and interoperable design allows developers to [create plugins](#) and integrate external applications to achieve specific functionalities.

Scalable to any size

From a few students to millions of users, MOODLE can be scaled to support the needs of both small classes and large organizations. Because of its flexibility and scalability, MOODLE has been adapted for use across education, business, non-profit, government and community contexts.

Robust, secure and private

Committed to safeguarding data [security](#) and [user privacy](#), [security controls are constantly being updated](#) and implemented in MOODLE development processes and software to protect against unauthorized access, data loss and misuse. MOODLE can be easily deployed on a private secure cloud or server for complete control.

Use anytime, anywhere, on any device

MOODLE is web-based and so can be accessed from anywhere in the world. With a default mobile-compatible interface and cross-browser compatibility, content on the MOODLE platform is easily accessible and consistent across different web browsers and devices.

Extensive resources available

Extensive [MOODLE documentation](#) and [user forums](#) in multiple languages and free [content and courses](#) shared by MOODLE users across the world, as well as hundreds of [plugins](#) contributed by a large global community can be accessed from anywhere in the world.

Who uses MOODLE of LMS?

MOODLE's flexibility means it's an LMS used by organizations across the globe, regardless of sector. Companies large and small all face challenges that can be alleviated with the help of a Learning Management System like MOODLE and the notion of modernizing training processes is one that more and more organizations are getting behind every day. [Some of the sectors that deliver MOODLE learning](#) with huge success include education and training organizations, charities, healthcare, local Government, retail and veterinary.

ARTIFICIAL INTELLIGENCE (AI)

Artificial Intelligence (AI) is a wide-ranging branch of computer science concerned with building smart machines capable of performing tasks that typically require human intelligence. The field of AI refers to developing computer systems that use big sets of data to perform "intelligent" tasks: think visual perception, understanding natural language, reasoning and decision making. Machine learning is one way of building such systems based on providing the computer with examples of what it should do, and let it figure out (learn) how to do it. Artificial Intelligence entered the scene of computer science in the early 1950s when computers started learning checkers strategies and speaking English. Since then the field has made remarkable progress. With faster and more powerful computers, access to larger amounts of data and algorithm improvements, Al systems have taken off.

Artificial Intelligence (AI) is the ability of a digital computer or computer-controlled robot performing tasks commonly associated with intelligent beings. The term is frequently applied to the project of developing systems endowed with the intellectual processes characteristic of humans, such as the ability to reason, discover meaning, generalize or learn from past experience. Despite continuing advances in computer processing speed and memory capacity, there are so far no programmes that can match human flexibility over wider domains requiring much knowledge. On the other hand, some programmes have attained the performance levels of human experts and professionals in performing certain specific tasks so that Artificial Intelligence in this limited sense is found in its applications as diverse as medical diagnosis, computer search engines and voice or hand writing recognition. Artificial Intelligence (AI) makes it possible for machines to learn from experience, adjust to new inputs and perform human-like tasks. Most examples that one hears about today from chess-playing computers to self-driving cars rely heavily on deep learning and natural language processing. Using these technologies, computers can be trained to accomplish specific tasks by processing large amounts of data and recognizing patterns in the data.

Advantages of Artificial Intelligence (AI) in Education

- Provides Automated Grading both for Objective and Standardized Descriptive Assessments - This Al assisted procedure is used in the developed countries and also in some universities of our country.
- Supports Teachers - In addition to helping with grading, Al will also

provide support for teachers in some of the routine of tasks as well as communication with students. For example, one college professor can successfully use an Al chatbot (use machine learning and natural language processing (NLP) to deliver near human like conversational experience) to communicate with students.

- Supports Students - It has already been suggested that in the future students will have an Al lifelong learning companion. Essentially, this next generation of students will grow up with an Al companion that knows their personal history and school history. Therefore, it will know each student's individual strengths and weaknesses.

- Meets a Variety of Student Needs - Al will also be able to help students with special needs by adapting materials to lead them to success. For instance, studies are already showing positive results for Al teaching Autism Spectral Disorder (ASD) student's social skills.

- Allows Teachers to Act as Learning Motivators - As AI takes on more of a teaching role by providing students with basic information, it will change the role of teachers in the classroom. Teachers will move in to the role of class room facilitator or learning motivator.

- Provides Personalized Help - AI will also provide personalized tutoring for students outside of the classroom. When students need to reinforce skills or master ideas before an assessment, AI will be able to provide students with the additional tools they need for success.

- Identifies Weaknesses in the Classroom - AI will also work in identifying classroom weaknesses. For instance, AI will identify when groups of students miss certain questions letting the teacher know when material needs to be retaught. In this way, Al will also hold teachers accountable and strengthen best teaching practices.

- Monitors and Analyzes Student Progress in Real-Time - Teachers can monitor and analyze students' progress in real- time using Al tools. It means that the teachers do not need to wait until they compile annual report sheets. Also, Al gives teachers' recommendations as to the areas that require repeat or further explanation. In this instance, Al smart analytics picks up on topics that most of the students struggled with.

- Saves Time and Improves Efficiency - Al does is handle the burden of repetitive tasks teachers and schools have to deal with daily like attendance. There are also custom writing services like 'Online Writers Rating' that help handle any repetitive writing tasks. It helps save up more time so teachers can focus on teaching the students and other essential

duties involving creative work. For example, when using a grammar tool, the teacher doesn't have to repeatedly correct students' grammar. The students can use the Al-powered tools to learn word pronunciations, meaning and proper usage. AI education is also beneficial to international students that are still struggling to learn a new language.

- Provides More Personalized Learning Experiences - Al in education enables schools to carve out personalized learning experiences for their students. From student data, AI can analyze the student's learning speed and needs. With the results, schools can personalize course outlines that enhance learning based on students' strengths and weaknesses. For instance, they can include topics that appropriately suit learning requirements.

- Supports Convenient and Improved Student-Teacher Interactions - AI education makes interaction more comfortable and convenient for both students and teachers. Some students may not be bold enough to ask questions in class. Such could be as a result of the fear of receiving critical feedback. With Al communication tools, those students can feel comfortable asking questions without any fear or crowd. While on the part of the teacher, they can give detailed feedback to the student. Sometimes, there isn't enough time during classes to respond to questions in detail. They can also provide one on one motivation for any student who needs help.

- Simplifying Administrative Tasks - Every educational institution has tons of school admin tasks they need to deal with daily. Including Al to their systems can help to automate such tasks. It means that administrators can have more time to run and organize the school more smoothly.

AUGMENTED REALITY (AR)

Augmented Real (AR) has quickly become one of the most popular trends among software and hard ware developers. Augmented Reality (AR) allows people to interact with their real-world environment in an enhanced way. Using different kinds of technology, the environment is augmented by the technology. This can occur in many ways. On the more complex, the end users can get feedback through their sense of touch, their sense of smell and their sense of sight and sound. The technology being used changes the user's perception of the real world. This is not virtual reality, because virtual reality attempts to replace the real-world environment with a digital one. Depending on how sophisticated the technology, augmented reality can display visuals over the real world, provide artificial audio feedback

that's not actually present in the environment, and give various types of feedback through a user's different senses. Advanced augmented systems include visual headsets and complicated controls for interacting with the enhanced real-world environment. However, there are much simpler ways for one to implement augmented reality. This simpler version of augmented reality can be accessed using the same tools that most students use every day-the modern cell phone, smart phones, specifically has the ability to provide an augmented reality experience.

Augmented Reality in Education

With AR, classroom education can be extraordinary and more interactive, as AR can enable teachers to show virtual examples of concepts and add gaming elements to provide textbook material support. This will enable students to learn faster and memorize information. Human memory doesn't forget visuals easily. Here are some examples of Augmented Reality in education:

- An AR App, called "Dinosaur 4D+," with a set of flashcards enables users to view 3D dinosaurs, scanning through the card. With this, students can see the actions of dinosaurs and use app features to rotate, zoom and more. Besides, the application also provides some information about each dinosaur.

- The "Element 4D" AR app is another promising example of Augmented Reality in education, which makes learning chemistry fun. The application enables users to find the atomic weight, chemical elements, the reaction between two chemicals, and their names by simply putting two paper cubes for a special element block.

- Another admired example of AR/VR in education is [Google Expeditions](), which enable users to see 3D objects in the classroom, such as volcanoes, storms, and even DNA. This application provides more than 100 AR expeditions that include the history of technology, the moon landing and more.

  From the above examples, it is clear that AR in education can turn out to be a very exciting and useful intervention that will change the education system for at least the upcoming 100 years. And, this isn't just about elementary education rather it will also transform higher education and training systems.

Benefits of Augmented Reality Technology in Education

Augmented Reality in the education sector renders several sought-after perks including:

A Swift and Effective Learning System

AR in education allows students to gain knowledge through rich visuals and immersion into the subject matter. Moreover, speech technology also engages students by providing comprehensive details about the topic in a voice format. In short, the concept of eLearning with AR targets a major information-gathering sense in humans.

Easy Access to Learning Materials Anytime, Anywhere

Augmented Reality (AR) can replace textbooks, physical forms, posters and printed brochures. This mode of mobile learning also reduces the cost of learning materials and makes it easy for everyone to access.

Immersive Practical Learning

It can also help in professional training. Imagine being able to cook food or operate a space shuttle without putting others in danger or spending millions of dollars.

Engage Students and Spruce Up their Interest

The gaming mode of AR and the education system can make students' attitudes more positive. It makes learning interesting, fun, and effortless and improves collaboration and capabilities. Moreover, it provides vast opportunities to make classes less tiring by infusing unmatched interactivity through a computer-generated environment. E-Learning involves students in an enhanced environment where they can see how concepts happen. For creating such applications, companies hire developers deft in AR development.

Wrapping Up

Augmented Reality can bring a breakthrough to the traditional education system by transforming the complete learning experience. Altogether, it will also impact the interest of students and make them efficient. Also, this will help students in comprehending concepts in an immersive environment, which will simplify concepts and make learning easy. Moreover, education institutions will also gain colossal attention by offering an excellent learning experience through technology.

Using Augmented Reality in the Classroom

Teachers should be aware that the application of augmented reality has, thus far, leaned heavily toward science, humanities and the arts. With all this discussions about the tools that teacher's use and the benefits of augmented reality, how are teachers actually putting the technology to use in the class? One of the primary ways that teachers can ease the transition to augmented reality is by adopting tools that can apply to all grade levels

and skill levels. Another way that teachers are integrating augmented reality into their classes is by giving students ownership of the education experience. Teachers often use augmented reality to deliver content through apps. However, students can put together their own projects using apps that can then be shared with the class.

The science teachers have also used augmented reality to provide students with a more engaging way of learning about lab safety. Using triggers around the classroom, science instructors can bring warning about lab devices to life. As students walk through the lab, their devices can scan these tags and learn about different rules they should adhere to when running different lab experiments and working with different equipment. It's clear that there are many interesting ways that teachers are using augmented reality in the class. It can be used to teach rules and safety protocols, introduce students to their instructors, empower students to create their own three dimensional presentations or manipulate adaptable tools that can teach different lessons depending on the app that's downloaded.

The state of augmented reality in the class room today is still a little bit fractured. Researchers have made significant strides in understanding some of the best approaches to integrate augmented reality, but it remains one of the newest fields in education. Because of that, educators are still finding new ways of effectively using the technology in the classroom. Still, like all things in education, augmented reality is a tool that can be best put to practice with a little planning. Creating lessons that use augmented reality to enhance, rather than replace, more traditional instructional approaches seem to be the best approach of using the technology. This can be done by using many apps that make augmented reality, such a flexible and powerful tool for being used in the classroom. However, because augmented reality remains a relatively new field in education, researchers and educators are sure to discover new ways of using the technology in the future.

Five Reasons Why 'AR Apps' are Important for Students

1. A Better Explanation of Complex and Abstract Concepts

There is no doubt that your students will understand the concept better when they will visualize it in reality. Especially for the difficult topics, students will get to learn quickly with 3-dimensional model representations.

2. Elevated Student Engagement

AR learning provides a gamified approach towards learning; which makes the lessons fun. As a result, it serves a positive impact on the students and

keeps them engaged.

3. No Extra Tools Required

Today, 95% of teens own a smart phone. This can be used for constructive results as well. Parents and teachers don't have to spend extra on buying tools for interactive learning and teaching.

4. Practical Knowledge

Students can perform practical without any physical need for lab equipment. This is mainly helpful for professional courses like medical and engineering. Students don't have to testify patient practically and still can learn the process.

5. Accessible Learning

With AR Apps the users can learn anytime and anywhere from their smart phones. It is the best way to replace paper books, posters, huge physical models etc.

AR Apps for Self Learning

1. Google Translate

Google Translate is the most practical way to learn a foreign language. Google Translate allows users to scan any written text via their smart device and it will translate it in real time.

2. Starwalk

Anyone can learn about the stars and the constellations in the sky. By pointing the camera towards the sky the app will show all the details.

3. Aurasma

This app allows students to build their own AR experiences. Students just have to create their own triggers on the web version with Aurasma Studio.

SUMMARY

In India, significant developments in the use of ET have taken place in the educational sector. It is essential that the educational sector specifically the higher education segment adopts and integrates ET to improve quality and productivity. The ET with its versatility can accelerate one's ability to solve many problems related to teaching, research and administration that are encountered. By keeping view of these, this chapter dealt with the need of educational technology in the field of commerce education and its components were discussed

KEY TERMS

- ❖ Programmed learning
- ❖ Personalized System of Instruction (PSI)
- ❖ Computer Assisted Instruction (CAI)
- ❖ Tele conferencing
- ❖ Video conferencing
- ❖ Interactive white board
- ❖ Smart class room
- ❖ Blended Learning
- ❖ Flipped Classroom
- ❖ Augmented Reality
- ❖ Artificial Intelligence

ANSWERS TO 'CHECK YOUR PROGRESS'

1. Principles of programmed learning are Principle of Small Steps, Principle of Active Responding, Principle of Reinforcement, Principle of self - packing and Principle of Student- Evaluation or Student Testing.

2. Different types of programmed learning are linear, branching ,mathetics ,computer Assisted Instruction (CAI) and Learner Controlled Instruction (LCI) The first three styles - linear, branching and mathetics are the basic formats. The rules system represents the deductive and inductive approach to teaching. The other two types, Computer Assisted Instruction (CAI) and Learner Controlled Instruction (LCI) are not the basis format of Programming. They are, in fact, the ways and means of providing instruction.

3. An instructional technique based on the two-way interaction of a learner and computer with the objective of human learning and retention is known as Computer Assisted Instruction.

4. Interactive video is an interactive group communication or a real time interaction between two or more people in two or more locations through an electronic medium. It makes possible conferencing among the participants even remaining at a large distances from each other. On account of the use of a sophisticated electronic medium for

communication, teleconferencing may bring people together under one roof even though they are separated by thousands of miles for the exchange of information and opinion.

QUESTIONS AND EXERCISES

1. How the educational technology will be more useful in commerce and accountancy teaching?
2. What are the uses of internet in commerce teaching?
3. State the different types of Computer Assisted Instruction?
4. Is web based education is suitable for commerce and accountancy classes
5. What do you mean Blended Learning?
6. What is Artificial Intelligence?

LEARNING OUTCOMES

After End of the unit, One should be able to,
o Understand the meaning and uses of educational technology
o Study the various facilities available in the technology.
o Understand about programmed learning
o List out the types of Computer aided instruction and various software's available for commerce teaching.
o Point out the important uses of educational broadcasting and telecasting.
o Point out Blended learning, Flipped classroom, Augmented Reality, Artificial…

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BLOCK-VII. COMMERECE DEPARTMENTAND COMMUNITY RESOURCES

Structure

Introduction
Unit Objectives
Commerce department
Library
Records and registers to be maintained
Equipment
Essentials and desirable
Commerce club
Community resources
Uses in teaching and learning in commerce
Establishing link among school, resources and community
Inviting guest speakers
Field trips
Visits to banks and financial institutions
Excursions
Visit to industries
Summary

INTRODUCTION

The Mudaliar Commission Report known as Secondary Education Commission Report stated as follows, "A school is not merely a place of formal learning, whose main concern is not to communicate a prescribed quantum of knowledge which is primarily interested in training its pupils in the gracious are of living". Commerce teacher should inculcate interest among the students in various activities relates to the community and other allied areas to use it as a method of teaching the subject. Therefore in order to provide a through understanding in this area this unit aims at dealing with various community linked activities, how these activities are more useful to the students after completion of the school, the advantages of the activities etc., are discussed.

LEARNING OBJECTIVES

After going through the unit, should be able to,

✓ Explain the available various activities of commerce education

✓ State the functions of the commerce association and club

✓ List out the other community resources available for commerce students

List out the advantages of resources available for teaching commerce

COMMERCE DEPARTMENT

Like any other subject there should be separate room/rooms for the commerce. The setting and arrangements of these rooms should be such that it creates an atmosphere for the study and teaching of commerce.

The department of commerce of a school should have a block of three rooms at

least:

A) One room to be used as a general class room for reaching subjects of commerce

i.e book keeping ,elements of commerce, commercial geography etc. this room should be big enough to accommodate to many students as possible in a class.

B) One room for teaching of shorthand and type writing, transcription and business machines. If possible it should be provided with a flexible partition into two parts- one for short hand and other for type writing.

C) One room for business machines wherein adding and calculating machines, tape recording machine, duplicating machines, record players, Dictaphones, stock registers etc to be kept

Business like atmosphere is to be created in the department of commerce. Audio visual aids should be kept in the department in sufficient number to provide various experiences needed in the commerce programme.

LIBRARY

The commerce teacher must form one commerce library in his school; it should contain suitable books on commercial topics, trade periodicals and government publications. They are to him what the equipment of workshop and laboratory is to the engineer and the scientist. The commerce teacher can ask the students to write assignments by referring those books.

RECORDS AND REGISTERS TO BE MAINTAINED

Maintenance of registers and records is one of the important duties of the commerce and accountancy teacher. The teacher has to maintain so many records. A brief description of the important ones is given below.

1. **Keeping and Maintenance of Attendance Register:** Attendance register is a very reliable proof of a pupil's presence in the institution. He himself should prepare and maintain important basic document.

2. **Recording and keeping of Fee Register**: When pupils pay fee, details of the payment are entered in a register and a receipt issued to that effect. The

fees are handed over to the office in time. Fee concessions and scholarships are also some times granted to pupils. Records for all these have to be carefully prepared and maintained by the teacher.

3. **Preparation of the Timetable:** The teacher should learn the process of constructing a class timetable. Class timetable, teachers' timetable and master timetable are maintained in most of the schools. Timetable can also be made for sports and games, homework etc.,

4. **Keeping of Examination Registers:** After examination, the marks and progress of the pupils are noted in a register. Examination registers are very important documents. The class teachers should exercise great care in entering the marks. They should seek the help of their colleagues in comparing and verifying the marks. The signature of the headmaster should also be obtained in this register after every examination.

5. **Organizing Correspondence Records**: All letters received from the parents as well as replies sent to them should be recorded. Orders, circulars, notices or notifications from the authorities also should be safely kept in files. What is important is that any paper when needed should be easily traced out from the records of the teacher. Systematic filing is required for this.

6. **Recording and follow up the Progress Reports:** After every examination a detailed report about the progress of a student is to be sent to the parents. In some schools, this is done through pupils diaries. This arrangement served as a link between the school and the home, and the child's progress is thus properly watched by all concerned.

7. **Anecdotal Record:** This is a record of specific incidents, factual description of important and meaningful events or behavior of students on informal occasions. The description should be written very accurately and objectively. The record should have two columns, one for description of the incident and the other for interpretation of the incident. The event should be recorded soon after it is observed, because the incident will be fresh in the observer's memory. This record may be very useful in judging the personality of the student and for extending counseling services.

8. **Cumulative Record:** A cumulative record is a permanent record of a student which is kept up to date by the school. It is the educational history with information about his academic achievement, attendance ,intelligence, health report, likes and dislikes, hobbies, preference for a vacation, personality traits, etc., The nature of data are useful in

understanding a child, and help the teacher to evaluate a child thoroughly and continuously. It will be also be helpful for giving vocational and personal guidance systematically in accordance with the recorded personal, familial and academic detail.

9. **Preparing and keeping of Teacher's Diary**: Teacher's diary is a sort of record of his daily work, his plan of work with the students that he has already done and what he intends to do during a particular period. It contains a brief outline of the years' total work to be done in each subject and schedule of the syllabus to be covered during specified time span. Weekly program of the teacher according to the school timetable and home work assigned must also be entered. A small portion at the end of the diary may be set apart for the special methods that a teacher adopts for compensatory program of weak students. Some pages of the diary must be set apart to write the name of the students he teaches class wise and to enter relevant details of their academic record.

10. **Preparing Teacher's Handbook**: It is a ready reference material for the teacher to make instruction effective and dynamic. It contains summaries of chapters in the text book, conceptual developments of topics, statement of instructional objectives to be realized, explanation of different terms; facts; principles; learning experiences, exercises of various kinds suited to each topic, evaluation tools, and assignments for pupils and suggested reading materials for the teacher and pupils. It suggests the measures to be adopted to make his instruction suitable and effective. In short, it should be the consolidated result of a through pedagogic analysis of the curriculum to be transacted.

COMMERCE CLUB

Commerce club or association is started the leadership of the commerce teacher. The commerce teacher should take all possible steps to run the club effectively by gaining adequate support from the administration students and the community. It should be run democratically with an elected president student secretary executive members etc. All the co curricular activities of the department should be done under the banner of the commerce club.

A draft constitution of the club can be prepared by the commerce teacher, in consultation with the headmaster, to facilitate the smooth functioning of

the commerce club. This draft constitution provides information on name of the club, aims and objectives of the club, membership details and membership fees, purposes for which the expenditure can be incurred, the competent authority to sanction the fund, the various offices available and the procedure for filling up such offices etc.

The following office bearers are essential for the successful working of the commerce club.

- **Patron**

The commerce club should have the head of the institution as its Patron.

- **Sponsor**

One of the senior commerce teachers can be the sponsor of the commerce club.

- **Members**

All the commerce students of the school can be members of the club. Those who are interested in commerce can be associate members. However the membership of club should be as far as possible fairly homogenous as regards age and grade level in order that programmes that may be of interest to all the members can be arranged.

- **Executive committee**

An executive committee should be formed including the following members elected or nominated form among the students.

- ✓ Chairman
- ✓ Secretary
- ✓ Assistant Secretary
- ✓ Treasurer
- ✓ One or two class representatives from each class.

COMMUNITY RESOURCES

The main aim of using the community resources is to give equal opportunity to all the students to take part in such activities and to enrich their interest and understanding the contributions made by other streams to the teaching of commerce. Moreover, it should always be executed through the active and willing co operation of the students, staff and school management.

MEANING

A community provides 'concrete', 'saleable' and 'tangible' resources which are

extremely 'dynamic' 'interesting' and 'meaningful' for the teaching and learning of commerce. It is not enough for a child to have knowledge about factories,farms, council sessions, museums and commercial enterprises etc. He must have the acquaintance with all these. A community is a child's laboratory for having first hand learning about the ways of living. Community resources are the people and places members of a given community can turn to for assistance in filling an unmet need. The organizations can be public or private.

TYPES

❖ **Commerce Association or Forum:**

Commerce Association or forum may be organised in the school under the leadership of the commerce teacher. He should take necessary initiative steps to run it. It should have elected president secretaries, cashiers, executive members and general body members; it should conduct the various activities of the department, i.e. other co-curricular activities.

1. It provides a valuable link between students and staff and makes a worthwhile contribution to the smooth running of the departments.
2. It provides students with useful practical experiences in real situations.
3. It increase the relationship among students,
4. It provides opportunity to the students to take various responsibilities.
5. It may conduct the meeting with former students to know about their work and experiences in business.
6. It can arrange the guest lectures with the great businessmen and professional men to know about their jobs and services.
7. It can conduct film sessions related to work of committee and subjects.
8. It is the mother organisation for all activities related to commerce.

All the office bearers appointed by the students are responsible for the organisation of the programme and thereby they gain useful business experience..

❖ **Exhibitions:**

The commerce department can conduct exhibitions on important occasions. They can exhibit charts, diagrams, graphs, models, pictures and scrap book collection of coins and rupees used at various periods.

❖ **Debates and competitions:**

The commerce association or department in the school can organise debates in commerce subjects. It can also organise elocution and essay competitions on various topics in commerce and in general. Students of other school

inside and outside the town can also be invited. It can also organise annual competitions in short hand and typewriting- Prizes and certificates be given to outstanding students. Because of these competitions students may get interest in studying the subject matter. It eliminates the stage fear of the students. It provides an opportunity for improving vocabulary and expression.

❖ **Commerce Magazine:**

The commerce association can also publish a school or its department magazine annually. The commerce teacher can ask the students and teachers to contribute articles to the magazine. This department, if possible can publish monthly or weekly written magazines.

❖ **Social service:**

The commerce teacher can also organise social service scheme, this can be in the form of laying village road, cleaning the temple, teaching the adult illiterates, conducting evening special classes to the school children with the help of commerce students.

❖ **Vacation work:**

The commerce teacher can make an arrangement with the hostel warden and business agencies to engage the commerce students in their accounts departments during vacations. This will train the students with the variety of experiences during the limited period. Students with this experience can discuss with the other students to transmit their experience.

The commerce association may also make the necessary arrangements for guest lectures, panel discussions, workshops etc. He can invite nearby college or university professors, bank managers, great businessmen, auditors and accountants etc., to give guest lectures. He can also utilize the help of the above mentioned people to conduct a Workshop, panel discussions etc. In addition to the above mentioned activities the commerce teacher can organise other co- curricular activities according to the needs, interest, and co-operation available from the students and others.

❖ **Mock "Job Application Interview"**

Mock interviews on job applications may be organised in the schools. These may be the practical applications of theoretical details furnished by the commerce teacher as how to apply for some posts and how to face interviews. This activity may be organised for students in the form of drama. Dramatic performances will have far-reaching effects on the mind of students. They will remove the shyness and fears of interview mania and will enables students to farewell in the interview which they may face

later on.

For the success of these activities, interested and talented students may be selected and involved in inviting applications for vacancies of posts of assistants, clerks, stenographers, accountants; salesmen etc. Other students, who are not involved in the activity directly, should apply for various posts. All applications should be scrutinized and various types of questions should be framed, which may be asked in the interview by the members of the interview board. Students should also be trained efficiently how to reply to different questions put to the candidates in interview in order to make the function more attractive, real and life like proper dress for the students participating in the activity may be arranged from the professional firms dealing in different materials used in drama and other functions.

One of the commerce teachers or a businessman may be requested to act as the chairman of the interview board. At the first instance, interview can be taken in private or in the presence of a group of students, where the 'deficiency may be pointed out for improvement. Thereafter they should be analyzed and weakness of students may be removed or overcome before the students apply for actual posts later on in their life.

USES IN TEACHING AND LEARNING IN COMMERCE

The following are the few uses of using community resources.
1. It gives through knowledge about the subject matter.
2. It develops a sense of individual and collective responsibility among the students.
3. It develops the ability to work with others
4. It utilizes the leisure time in s better way.
5. It helps the students to become a good citizen
6. It creates and maintains good teacher student relationship
7. It makes school life more attractive and encouraging.
8. It develops good relationship between school and home,
9. It gives experience in leadership and organisation.
10. It strengthen the knowledge acquired in the classroom
11. It brings out the inner potentialities of the students.
12. It develops the self-confidence among the students.
13. It develops the feeling of belonging adjustment adoptability in ail situations.

As a whole it develops the all round personality of the students and a spirit of service; the students learn how to organise, plan conduct the various community related activities.

ESTABLISHING LINK AMONG SCHOOL, RESOURCES AND COMMUNITY

The potential activities in school/community linkages fall into three main categories.

1.   Community as a Source of Student Curriculum Based Learning

The community offers many opportunities to add value to curriculum based learning. There are many examples where community activities and issues have been incorporated into the school curriculums.

2.   Incorporating Learning into School Contribution to Communities

Students contributing to their local community can foster learning. For example, community volunteering program allows students to experience community service and gain skills. Schools could offer student skills to community members such as in computer training. Community events involving the school such as eisteddfods or festivals create a community profile for schools and build the experience of students.

Community involvement can also build student interaction with particular groups in the community such as senior citizens, indigenous people or people from a non English speaking background. It can build the involvement of students in young people's organisations.

This interaction not only enriches the educational experience of students but also redefines students and the school as key community assets - as young citizens, not just adults in the making.

3.   Community Involvement in the School

Community members can add to the life of the school and to educational outcomes. Several schools have established community mentors that participate in classroom interaction and school activities.

Schools have also been seen as centres for community learning where community members and organisations can assess school facilities for meetings and learning activities.

4.   The Role of Teachers

Community linkages can help orient new teachers. Community situations can also be used in the professional development of teachers. Teachers may

also play a role in assisting community organisations or in helping the local community manage local issues.

Check your progress

Notes: a) Write your answer in the space given below

   b) Compare your answers with those given at the end of the unit

1. How can schools establish link with community?

....

....

2. Is it necessary for a separate library for commerce? Why?

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....

INVITING GUEST SPEAKERS

Commerce is a very wide subject. It requires expert ideas from eminent scholars in their subject specialization. In such a situation guest speakers should be called upon to deliver lectures which will help the students to enrich their knowledge. For subject like Tax, Marketing, Company Law etc. people like Chartered Accountants, Marketing managers, Lawyers etc can be called upon respectively to share their practical experience. Students get opportunities to hear eminent persons who discuss the actual problems regarding various occupations.

FIELD TRIPS

Educational visits to banks, insurance office, factories, business houses, stock exchange markets, super markets, production centres and exhibitions help students to explore their environment. It helps the teacher to teach lessons with suitable practical examples. Experiences gained by these visits are not

easily forgotten. Since it is practical experience it provides opportunity to acquire knowledge and understand the subject. It links not only the class room subject but also provides general education. It provides useful contacts with the real world.

Every visit should be preceded by preparation in the form of a short introductory talk explaining the nature and object of the visit and suggesting special points or factors to be looked for. At the time of the actual visit the teacher should correlate the subject matter with the real field. It is equally important that the result of the visit should be consolidated by questioning and discussion so that it may fulfill the designed purpose. The teacher can ask the students to write one assignment about the field visit. Visits without the preparation and follow up will, serve only the entertainment purpose. The teacher must also realise the responsibility at the time of conducting field visit. He should get the parents consent in the written form for pupils to take part in visits outside the school He should also get the official permission from the head of the institution and from the higher authority of the place in which he is going to conduct a field visit.

VISITS TO BANKS AND FINANCIAL INSTITUTIONS

Visits to the local banks may be arranged so that, students may be able to learn the different activities of the bank. As soon as students reach the bank, they should be taken to the particular place and introduced to person or a person, who has been provided by the bank to explain various activities of the bank or its services to the public. If the work of the bank does not suffer, they may be introduced to the person at each counter.

Thus visits to the bank provide good opportunities to students to learn working of the bank and get an idea of its real working.

Check your progress

Notes: a) Write your answer in the space given below
          b) Compare your answers with those given at the end of the unit

1. What is the need of field trip in teaching of Commerce?

....

....

2. State the purpose of arranging Mock interviews.

....

....

3. School bank is very useful activities in the school because
    a. it gives loan to the students
    b. it provides practical idea in banking subject
    c. the school can take money at the time of need
    d. it increase the investment in the nation.

6. What is the purpose of various visits by the commerce students?

....

....

7. Visit to bank improves the saving habits of the student? Do you agree?

....

....

EXCURSIONS

Excursions to industrial Centres:

It is very difficult to explain in details about the actual working of various industries in India. Whatever explanations are given by the teachers are theoretical in nature. They cannot become real and lasting unless they personally see the proper working of various departments of the industry. Students may be taken to the place, where raw materials are kept. They may be shown the various processes through which the raw material passes. Ultimately they should be shown the finished products. In these processes students will actually observe the working of each section. The working of each section should be explained by the person incharge of the section.

The important reason why students should be taken to the factories and other industrial concerns is that they may be able to see the factories and also see how goods are produced from raw materials. Thus excursions to industrial centres will benefit students and enrich their experiences about the working of the industries in India.

Excursion to Places of Geographical importance:

Excursions to places of Geographical importance should be arranged to explain to students the need and importance of locality and regions of the country and their valuable contribution in national as well as international interests, with special reference to its impact on trade, commerce and industry of the country. Students should be shown the places, which are the sources of supply of raw materials of various kinds to large number of industries. Side by side students should also be explained the significant contribution and impact of the goods, exported to other countries of the world. Only by visiting the places of geographical importance, students can have permanent contrived real experiences, because they visualize the presence and availability of plenty of raw material in different parts of the country.

VISIT TO INDUSTRIES

Visits to important industries and big business houses may be arranged at regular intervals the students of commerce are able to get the real knowledge as to know how the business work, They may be lead to the different sections of the business and should actually watch how the papers of business transactions are actually prepared. For example, they may see how debit and credit notes are prepared, how the invoice prepared, how the hundi and bill of exchange is prepared and how they are entered into several books of accounts and how the accounting books of maintained in that firm. The system of filling and the labour saving devices may be explained to students.

SUMMARY

The school activities be organized properly it is highly desirable that the programme should be planned and announced well in advance. By doing so students will get sufficient time to prepare for and regularly participate in the various activities. The skill in different activities can be acquired by doing regular practice and acquiring experiences in various activities continuously. For this purpose a reasonable portion of the time should be regularly devoted to the various activities planned for commerce students. As a centre of educational growth and excellence binding it do develop student's personality and shaping up of their character. These aims cannot be achieved if they are intended to be achieved within the four walls of class room teaching: rather it can be achieved through well planned and well organized programme of community linked activities supplements the knowledge gained through the regular school courses in the class. Therefore using of community resources constitutes an integral part of the school organization. The mass media technology is providing powers which can possibly be attributed to a super-man.

KEY TERMS

- ❖ Community resources
- ❖ Commerce department
- ❖ Commerce laboratory
- ❖ Teachers diary
- ❖ Records and registers to be maintained.
- ❖ Commerce club.
- ❖ School bank.
- ❖ School co-operative society

KEY WORDS

Exhibitions:

The commerce department can conduct exhibitions on important occasions. They can exhibit charts, diagrams, graphs, models, pictures and scrap book collection of coins and rupees used at various periods.

Field Trips

Educational visits to banks, insurance office, factories, business houses, stock exchange markets, super markets, production centres and exhibitions are known as field trips.

Community.

Community as a Source of Student Curriculum Based Learning, Incorporating Learning into School Contribution to Communities and Community Involvement in the School are some ways through which community can establish link with schools

ANSWERS TO 'CHECK YOUR PROGRESS'

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1. Educational visits to banks, insurance office, factories, business houses, stock exchange markets, super markets, production centres and exhibitions help students to explore their environment. It helps the teacher to teach lessons with suitable practical examples. Experiences gained by these visits are not easily forgotten. Since it is practical experience it provides opportunity to acquire knowledge and understand the subject. It links not only the class room subject but also provides general education. It provides useful contacts with the real world.

2. Yes, the commerce students are directed connected with the community in all aspects, like marketing, insurance, banking, promotional activities etc., in order to develop the those various skills of the commerce student, they need for a separate commerce library in their school; it should contain suitable books on commercial topics, trade periodicals and government publications. They are to him what the equipment of workshop and laboratory is to the engineer and the scientist. The commerce teacher can ask the students to write assignments by referring those books.

3. Community as a Source of Student Curriculum Based Learning, Incorporating Learning into School Contribution to Communities and Community Involvement in the School are some ways through which community can establish link with schools

4. Arranging the Mock interviews on job applications is to know the practical applications of theoretical details furnished by the commerce teacher as how to apply for some posts and how to face interviews. This activity may be organised for students in the form of drama. Students should also be trained efficiently how to reply to different questions put to the candidates in interview in order to make the function more attractive, real and life like proper dress for the students participating in the activity may be arranged from the professional firms dealing in different materials used in drama and other functions.

5. b.

6. The visits help the teacher to teach lessons with suitable practical examples. Experiences gained by these visits are not easily forgotten. Since it is practical experience it provides opportunity to acquire knowledge and understand the subject. It links not only the class room subject but also provides general education. It provides useful contacts with the real world. Educational visits to banks, insurance office, factories, business houses, stock exchange markets, super markets, production centres and exhibitions help students to explore their environment.

7. Visits to the local banks definitely encourage the saving habit of each and every student. The visit of the bank may improve the students to learn the different activities of the bank. The student also familiar with the formalities like opening of an account in a bank needs, they should be taken to the particular place and introduced to person or a person. Thus visits to the bank provide good opportunities to students to learn working of the bank and get an idea of its real working.

UNIT END EXERCISES

1.   Explain the role of any co-curricular activities in the teaching of Commerce.
2.   Explain the purpose of commerce club.
3.   Write notes on:
(i)   Commerce Room; (ii) Commerce Department (iii) School co-operative society.
4.   State the uses of community resources in teaching of commerce.
5.   What are the records and registers to be maintained by a teacher?

LEARNING OUTCOMES

After completion of this unit, one can able to work out to,
✓   Explain the available various activities of commerce education
✓   State the functions of the commerce association and club
✓   List out the other community resources available for commerce students
✓   List out the advantages of resources available for teaching commerce

FURTHER READING

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