M.Ed. SEMESTER-III

CURRICULUM, PEDAGOGY AND ASSESSMENT: SECONDARY LEVEL

Units 1&2

S.Anithamary,

Assistant Professor

Muslim College of Education

SEMESTER-III

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UNIT -1

CURRICULUM THEORY AND PRACTICE

Curriculum Theory

Meaning of Theory

- A system of beliefs which guide or control actions.

Functions of Theory

- Descriptive
- Predictive
- Explanation
- Guidance

The Substance of a Theory

- Provides a logically unified framework,
- Provides generality, and
- Provides an empirical (experimentally observed) basis.

Meaning of Curriculum Theory

A set of interrelated concepts, definitions, and statements that presents a systematic view of a phenomena by specifying relations among components with the purposes of explaining phenomena.

- Theory furnishes those working with a particular realm of knowledge with a way of viewing the world and how it works.
- Theory provides a foundation for action, shapes individual thinking along a certain way.

- A theoretical framework is essential for the rational, orderly, and productive conduct of the curriculum enterprise.
- Not all answers are known of what to teach or how it should be taught.

People have developed theories to guide, to study and aid in making predictions.

Kerlinger's Definition of Curriculum Theory

A set of interrelated concepts and propositions that

- Presents a systematic view
- Of a phenomena (situation)
- By specifying relationships among variables (components)
- With the purpose of explaining and predicting the phenomena (situation).

Derivation of Curriculum Theory

- According to George Beauchamp - Curriculum theories are derived from -

A. Humanities
B. Natural Sciences
C. Social Sciences

- Beauchamp described -

a. Design Theories (models for curriculum design)
b. Engineering Theories (models for curriculum development)

The Sources of Curriculum Theory

- Curriculum theory draws heavily from our philosophical beliefs -- our understanding of knowledge and our understanding of the world.
- Curriculum development work is greatly influenced by the values we bring to the curriculum development process.

Classic Bases for Curriculum Theory

- Scientific Theory
  - General facts, laws, or hypotheses related to each other derived by purely logico-mathematical procedures or a larger set of empirical laws. These unify subject matter.
- Philosophical or Humanistic Theory
  - Based on values. Indicates what should or should not be included or done in action. Integrates the intellectual with the emotional and physical.

Characteristics of Curriculum Theory

Provides (1) a unified framework, (2) generality, and (3) an empirical basis (experimentally observable).

Functions of Curriculum Theory

(1) describe, (2) predict, and (3) explain.

Result of Curriculum Theory

Guide to those who subscribe to the theory.

Explaining Curriculum Theory

Textbook: Example to interpret Curriculum Theory

- Define the Topic
- Where is the content being derived?
- Rationale for the Contents and Structure
- Explanation of Structure
- Aim of the Book
- Goals for the Book

Summary of Curriculum Theory

- We use theories in our daily lives for direction.
- They aid us in making decisions, i.e., family, finance, etc.
- Theories guide thought.
- They provide a basis for reasoned inquiry in practice.

CURRICULUM THEORIES

The challenge to curricularists is to make sense out of the complexietyof the field of curriculum and to determine whether they should create their own curriculumtheory or hteories,borrow theories from other disciplinessuch as psychology,sociology,philosopy etc.

1.**Formal theory**

This theory deals with speculation about the structure of the disciplines that comprise the curriculum.

2.**Event theory**

This theory very similar to what we have been discussing as scientific theory,refers to speculation about occurences.it attempts to predict what will occur given cerrtain circumstances.

3.Valuational Theory

This theory involves speculation about the appropriate means to attain the objectives most desired and to include the content judged to be hthe best.

4.**Praxiological Theory**

Such theory regers to speculation about appropriate means to attain wht is considered valuable.

Future and futurism,Directions for future,Challenge of dealing with future

Future Curriculum is defined as a design or planning of an institution or country and it is by itself encompasses a wide range of meaning which covers a whole programme that has been planned (Slaughter, 1997). Longstreet and Shane (1993) stressed that futures studies are a study on future society and not a study about the future. Combining these both definitions by Saedah Siraj (2001) on curriculum and Longstreet and Shane (1993) on futures studies resulted in the definition of future curriculum as a design or planning of the whole education programme for future society. Therefore, future curriculum is a curriculum developed today for tomorrow based on systematic form of assessment needs empirical data through research studies which among them utilize Delphi technique or Cross Impact Analysis.

The developed curriculum will be used in the education system so that what has been implemented in the education system would have clear direction in resulting better future generation without loss of unnecessary cost, energy and resources.

Foundations of Future Curriculum

The foundations of future curriculum should be understood beforehand, in order to allow a certain change to happen in the future. The foundation would be the crust of future curriculum. It is divided into three basic components as follows. The eight basics adopted from Longstreet and Shane (1993) are as follows:

(1) Planning of future curriculum is not to change the present;

(2) The future is a phenomenon subject to changes compared to the present;

(3) Mankind invents things today and also in the future based on what has been planned;

(4) Future curriculum planning is organized based on values and beliefs;

(5) The future curriculum begins in the present time. Therefore, the present is an important foundation for
future curriculum;
(6) The policy of future curriculum focuses on probabilities and impact or outcomes related to planning for
better future;
(7) As addition to each statistical and forecasting analysis, the study of future curriculum and other
rational study on forecasting development should be able to be formulized and measured;
(h) Humanity itself at present could form the criteria of better concept of the future.

The Main Elements

There are two main elements in future curriculum:
(1) Identify main events with high probabilities to happen in the future-related to education for future society; and forecasting on various analysis dimension which relates to education for future society which includes analysis on socio-economy and politics, human resource, energy sources, agriculture or even military;
(2) Forecasting (scientific observation of the future supported by data and application of experience) or estimating (an action to anticipate future events beforehand or bypassing current data to form interrelated scenarios) on national and global trends of the future that are related to education for future society and forecasting on various dimension analysis which are related to education for future society, including analysis of socio-economy and politics, human resource, energy sources, agriculture or even military.

Design or Planning

According to the authors, the design of future curriculum should determine clearly the direction of the present curriculum in the aspect of its quality, target of

national aims or even development of future generation who possess high intellectual ability, ethical, intelligent and knowledgeable. Due to the fact that human himself/herself is capable of determining significant development in the future, future critical and challenging situation would be better managed, conditionally the future curriculum could be planned appropriately and systematic (Saedah Siraj, 2005).

Development of future curriculum

These three basic components of future curriculum as discussed above (eight-basics, the elements of future curriculum and design or planning of future curriculum) are vital in enabling changes to set foot in the future.

Approaches to Develop Future Curriculum

There are numerous approaches in measuring the future curriculum. Among them were adopted by Cornish (1977), Friman, Tufvesson, and Woodling, (2000), Glenn and Gordon (1996), Klopfenstein (1986), Saedah Siraj (2002b; 2002c; 2005; 2006), Saedah Siraj and Paris Saleh (2003), Schnaars (1989), and Smoker and Groff (2003) as listed below:

(1) Delphi technique (experts' consensus opinion);

(2) Cross impact analysis;

(3) Alternative futures projection;

(4) Visioning approach;

(5) Scenario planning;

(6) Word mapping;

(7) Linear or classic projection;

(8) Bibliographic analysis;

(9) Environmental scanning;

(10) Trend extrapolations;

(11) Future scanning and analysis method;

(12) Historical analogy;

(13) Technological forecasting;

(14) Technological impact assessment;

(15) Future wheels;

(16) Science fiction;

(17) Intuition and intuitive forecasting;

(18) Relevance trees;

(19) CERT/CPM Analysis (A method for doing complex planning of great numbers of people and subcontractors working on some large projects, such as the space program);

(20) Short, medium and long-range planning.

Censored,compensatory,irrelevant and emerging curricula

Irrelevant Curriculum Very often we hear people criticizing the school and its curriculum. When people say that the 48 curriculum is irrelevant, they generally mean that it does not meet the needs of the society and the student. As you have studied. curriculum planners should take the social and student-related factors into consideration while designing curriculum for a specific target group. The educators consider the curriculum irrelevant if it is fused or trivial. Let us examine what a fixed or trivial curriculum is.

Fixed curriculum: A relationship exists between changes in society and changes in curriculum. The scheme of a curriculum must take into account the intention of improving the life of the people so that the future could be better than the present and the past. This idea suggests that cumulative knowledge and the total culture of society must be reflected in the curriculum. If schools are to maintain their health and vitality. the curriculum cannot remain fixed in a world

full of change. The curriculum should have adequate flexibility to reflect and respond to social changes and developments.

Trivial curriculum: This implies that facts and figures in a curriculum are outdated, meaningless and non-essential to students. Such a curriculum takes students nowhere as far as their growth and development is concerned. Implementation of a trivial curriculum will waste the academic time and energy of the students. For desired fruits the curriculum should include updated, relevant and meaningful facts and figures.

Emerging Curriculum

An emerging curriculum is one that constitutes new curriculum content and areas of study. It includes those aspects which are relevant for the emerging society. These innovative areas of study emerged from traditional subject matter and reflect sociopolitical changes in the society. Such a curriculum is both learner-oriented as well as value-oriented. Several curriculum trends are emerging today which could be incorporated to constitute a balanced curriculum for secondary school education. Some of the emerging areas that can be included in the emerging curriculum are: Special education, Multicultural education, Sex education, Drug abuse, Population education, international relations, Pollution, Vocational education, Community and health education These are some of the numerous emerging areas of study that demand attention today and will continue to do so in the future as well.

Curriculum Models

- Models suggest a representation a certain theory.
- They aid in bringing a theory to reality.

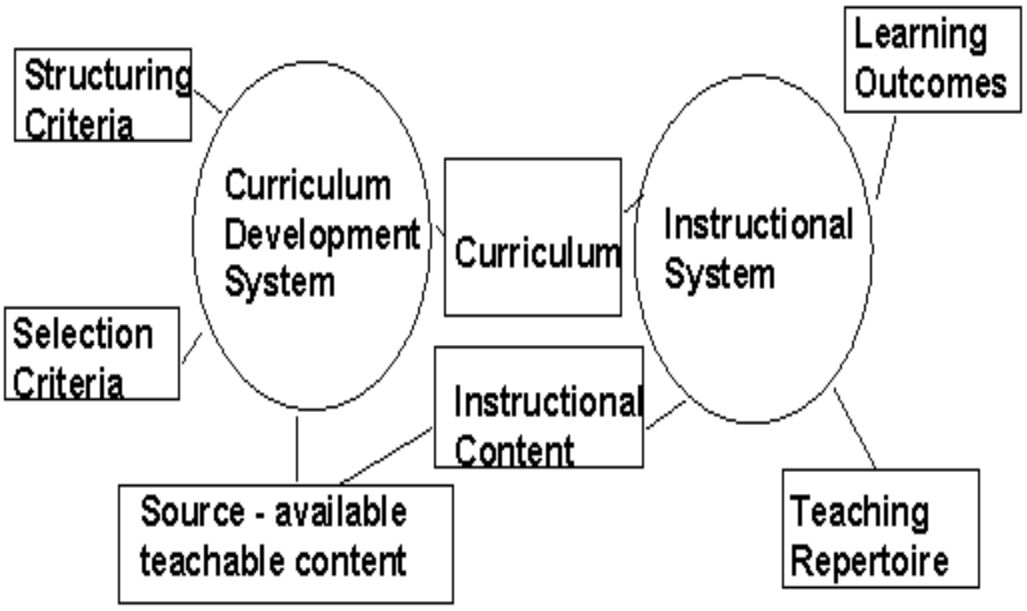
Models

- Used to turn theory into practice.
- They reduce the bewildering complexity of theories by limiting our scope to practice features.
- Can be used as tools with which to think about curriculum, thus stimulating research and the formulation of new theoretical concepts.

Johnson's Model

Johnson tells the following for scheme of curriculum

1. A curriculum is a structured series of intended learning outcomes.
2. Selection is an essential aspect of curriculum formulation.
3. Curriculum guides instruction.
4. Curriculum evaluation involves validation of both selection and structure
5. Curriculum is the criterion for instruction evaluation.



MacDonald's Model

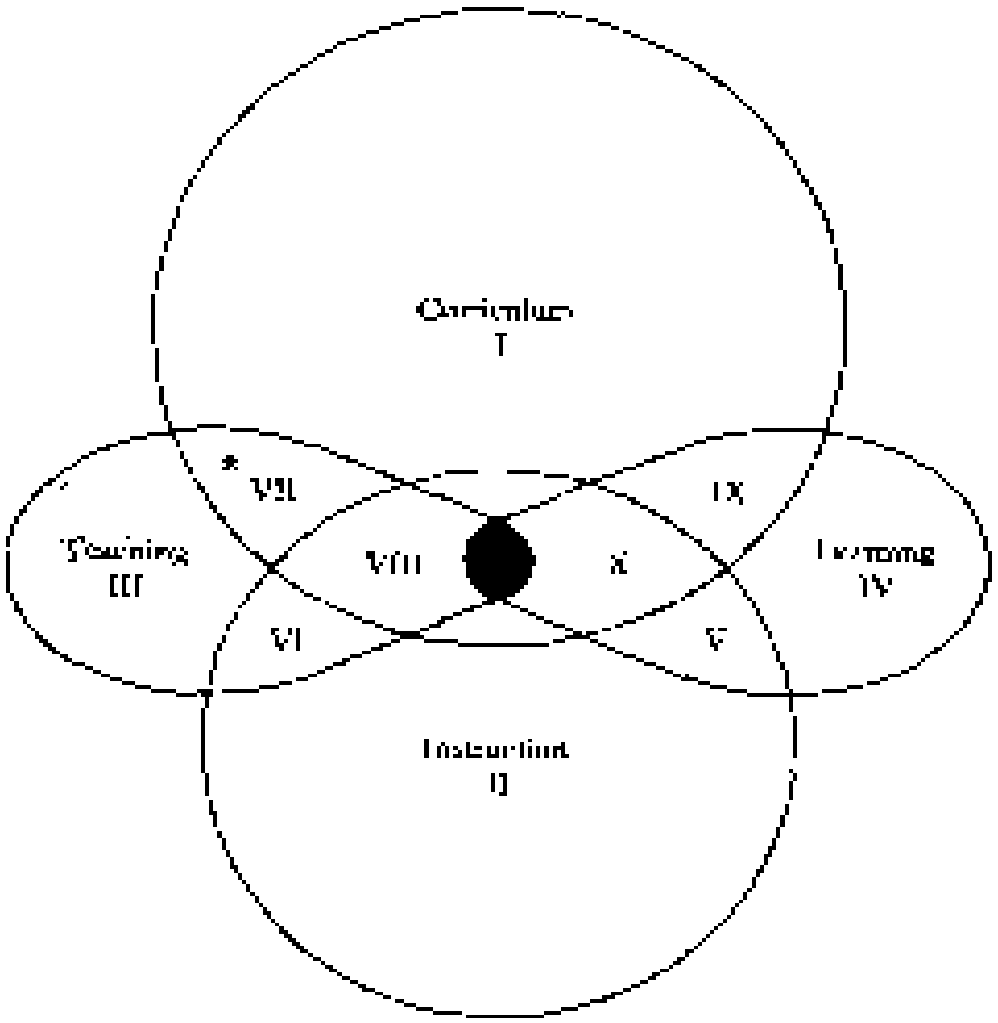
MacDonald defined the social system that actually produces a plan for instruction, which he in turn defines as another social system within which formal teaching and learning take place.

1. Teaching is different from instruction and is defined as personality system-the teacher –acting in a particular manner to facilitate learning.2. Learning is defined as a personality system oo: the student becomes involved in a specialized task

oriented behaviour.

FIGURE 4-3

Macdonald's model. (Reproduced by permission from James B. Macdonald, "Educational Models for Instruction." In Theories of Instruction edited by James B. Macdonald and Robert R. Leeper. Washington, D.C. Association for Supervision and Curriculum Development, 1965).



Wilsons's open access curriculum model (3-dimension oval curriculum model)

This model emphasizes the interactive nature of the areas of curriculum namely

*The organized disciplines of knowledge

*The human processes

*The unique attitude and values in individual acquire towards and about himself

Areas of instruction

Curriculum is seen as concerned with 3 distinct areas of instruction the first is mans formalized perceptions of realities which have become known as academic disciplines the second includes the human processes those attitude and ability which set our species apart from the other members of this planet. The third and final aspect of curriculum to do with the attitudes and values expanded accepted and denied by the cultures of society. The model provides a framework for viewing what one does and suggests areas for riches full development and investigation

Perception of reality

The tradition subject matter of curriculum has consisted of studies in the natural sciences (biology physics chemistry and other related disciplines mathematics grammar history geography and other social sciences. these areas represent man's attempt to catalog, systematize and records his perception and knowledge of reality. This perception of reality can be classified into three board areas

1. Physical reality / the natural sciences
2. Expression of equality /the natural sciences
3. Social reality /the social science

The general reality perceptions of the physical Sciences are often seen as giving as the scientific method, the discovery method. The curriculum we must give our students increased opportunity to develop and express their perceptions.

By developing these expressions students may also become aware of the legitimacy of catalogs knowledge as well as the changeability of that knowledge.

Human processes

The current educational thought is humanitarian curriculum. The three foremost areas which sum to pertain to this topic are

1. Communication, a broader field than language, arts
2. affective /cognitive development, integrative rather than separated and
3. socialization, more than working well with others

Human attitude and values

Schools account for some of the attitudes and values a student possess and it became apparent that this is a crucial responsibility the schools because of the continuous long-term impact of the school and the curriculum. As schools engage in curriculum development and implementation with respect to the attitudes and values of its students and teachers. They cannot overlook the 3 segments of

A) Personal attitudes and values

B) Groups / subculture attitudes and values

C) The overarching set of social / national attitude and values

Design in management

The design provides for management within one set such as human processes between two sets as human processes and perception of reality and finally among all three sets of attitudes and values perceptions of reality and the human processes.

In human processes contains communication cognitive / affective functioning and socialization of the management goals is to see that within this major area of instruction we can begin to promote a unity within one such major set of curriculum ideas.

Implications

It has been proposed that three-dimensional curriculum model be uses to help regards control and to provide a frame of reference for managing / developing curriculum. the model also suggests total development of children.

STRUCTURE OF SECONDARY SCHOOL CURRICULUM IN TAMILNADU

Secondary Stage (2 years)

a. Three Languages — the mother tongue/the regional language, modern Indian language and English.

b. Mathematics

c. Science and Technology

d. Social Sciences

e. Work Education

f. Art Education (fine arts: Visual and Performing)

g. Health and Physical Education (including games and sports, yoga, NCC and scouting and guiding)

Curricular Area

a. Language

Language learning at the primary stage is crucial to not only meaningful learning in all the subject areas but also to the learner's emotional, cognitive and social development. New entrants with poor language background remain poor learners and poorer performers in all areas unless specially helped in language skills. Failure to teach language skills properly and adequately in the early years will lead to difficulties in learning subsequently through the upper primary, the secondary and the higher secondary stages. Language education has the greater potential as a means to develop, progressively through various stages, attitudes and values related to all the core components by incorporating appropriate themes and adopting suitable teaching learning strategies. During the first two years of the primary level, children have to be specially helped to acquire the basic skills of listening, speaking, reading, and writing and thinking. At the upper primary stage, students' competence in both the languages has to be strengthened further to enable them to acquire real life skills to be used in their future day-to-day life. In their first language, they have to be introduced to various forms of literature. The study of the third language would also begin at the upper primary stage. The study of all the three languages, then, has to continue up to the end of the secondary stage, i.e., Class X. At the secondary stage (Classes IX and X) in the first language full mastery over the applied form of language and good acquaintance with literary language would be aimed at. Learners have to achieve maturity in oral and written expression in response to what they read or listen to. Thus, high order communication skill in the first language, with grammatical accuracy and appropriateness of style must be adequately underlined as the main objectives of first language learning at this stage.

b. Mathematics

One of the basic aims of teaching mathematics in schools is to inculcate the skill of quantification of experiences around the learners. It Mathematics helps in the process of decision-making through its application to real life situations in familiar as well as non-familiar situations. In the first two years of the primary stage, i.e., in Classes I and II children need to form some basic pre- 71 number concepts related to size, length, mass etc. These provide them a sound foundation for learning numbers and developing competency of addition and subtraction. In classes III to V, the child should be introduced to numbers and fraction as a concept. The four fundamental operations - addition, subtraction, multiplication, division, and computational skills related to them need to be mastered on numbers and fractions. The concepts of length, mass, capacity, money, time, area and volume are developed along with the units of measuring these. At the secondary stage, the teaching-learning of mathematics has to serve two complementary purposes. Firstly, the aim should be to further enhance the capacity of the students to employ mathematics in solving problems that they face in their day-to-day life. Secondly, a systematic study of mathematics as a discipline has to be started here and continued further. The curriculum may include the study of relevant arithmetical concepts, number system, algebra, geometry, trigonometry, coordinate geometry, mensuration, graphs, statistics etc. The idea of proofs should be developed with thrust on deductive reasoning. At the secondary level, evaluation should lay stress on testing the understanding and application of concepts rather than testing the rote memory of the concepts. c. Science and Technology Science form an integral part of learning at the primary stage. Essentially it has to be learnt mainly through concrete situations related to immediate environment during the first two years. The process of searching for answers independently and in groups

can begin at this stage. Skills of estimation and measurement can also be developed. Children at this upper primary stage begin to recognize, the relationship of science, technology and human enterprise. The process has to be strengthened and concretized. Elementary understanding of some basic principles of science relating to matter, materials and energy can be introduced at this stage. Instead of loading the students with scientific information, efforts should be made to help them to learn key concepts which cut across all the disciplines of science. At secondary state Scientific attitudes and skills developed. At this stage, learning of science would continue to be built around natural and social elements of environment. Science, technology, society and environment would coalesce in teaching and learning of science at this stage. Practical activities to be chosen should have relevance for future life through acquisition of skills and values. Teachers could help the learners devise appropriate experimentation and activities within the school and also outside school involving immediate environment such as farming, factories, industries and community.

d. Social Sciences

The component of social sciences is integral to the total quantum of general education up to secondary stage. It helps the learners in understanding the human environment in its totality and developing a broader perspective and an empirical, reasonable, and humane outlook. Teaching of social sciences ought to promote a humane and national perspective, and inculcate a sense of pride in the country and in being an Indian. In Classes I and II, children are introduced to the environment in its totality. The skills of observation, description and self-expression could be promoted in this stage. In Classes III to V, the natural and social elements of environment may be introduced under a separate area of study called Environmental Studies. Some well-known personalities of the community and the

country, who acted as major influences in shaping lives of people, may also be included in the curriculum. Schools will be given full autonomy at this stage to use locally developed curriculum and locally available resources for teaching of environmental studies. At the upper primary stage, the learners may be gradually initiated into the study of India and the world in some greater detail. The components of environment and their interaction will be studied in terms of processes and patterns. The contemporary society including the social, political and economic institutions of India and their functioning, the administrative system, urbanization and economic and social development may be some other areas to be included. In addition to academic skills, social skills and civic competencies may be developed to help them grow and participate effectively in day-to-day life. At the secondary stage, Major developments in the recent past including India's struggle for freedom and the contributions of various sections/regions/groups especially the role of women and weaker sections in the movement having bearing on the social, economic and political developments and challenges in the post-independent India will also be covered. At the end of the secondary stage, the students may develop the ability to use their knowledge, understanding and skills by undertaking wide range of studies at various scales-local, regional, national. It would be useful if students take up a few case studies/project works as it would help them investigate and consider the issues that arise from people's interaction with their environment.

e. Art of Healthy and Productive Living

The need for introducing an interdisciplinary area of learning integrating the major concerns of Health and Physical Education, Art Education and Work Education has assumed greater significance. The main objective of art of healthy and productive living is to develop aesthetic sensibilities and skills of healthful

living besides providing a nurturing ground for love for labour, positive social attitudes and moral values so as to enable the child to be receptive to ideas of others with humility and sincerity in thought, word and deed. In Class I and II, the activities could be organized which help children make subjective choices about music and also drawing and painting in some shapes, developing clay models during play, and participating in group activities involving light exercises, group songs, theatrical arts and dances and imitative actions. This stage is apt for value inculcation through storytelling and dramatization suiting to the level of maturity and understanding of learners. All such activities need to be presented in an integrated manner. At this stage children may also develop a habit of keen observation and accurate description of things around them. They may pick up the skills of both, cleaning the teeth and dressing up. Now the children have also to learn behaviour and speech in formal settings. They are to be taught how to sit and stand properly and how to talk in a formal manner. At this III-V stage, children develop better muscular coordination and acquire sensory discrimination. The play at this stage may include light physical exercise and drill which can be combined with music. This is the stage when children can be taught to develop elementary knowledge relating to health, strength and beauty of the body. In this stage, may appreciate beauty in the objects around them and undertake exercises, and develop sense of preference for things and music. Activities pertaining to drawing and painting, collage, clay modeling, printing, using masks, puppets and toys, folk dance, rangoli, alpana and the like may constitute the syllabi at this stage. It will be desirable to orient teachers in undertaking activities pertaining to the art of healthy and productive living in an integrated manner. Suitable instructional materials both in print and non-print form including wall posters addressed to the teachers may prove to be of great help in initiating children to the art of healthy and productive living.

f. Work Education, Art Education, Health and Physical Education

Work Education is viewed as purposive and meaningful manual work, organized as integral part of the learning process and resulting into goods or services useful to the community besides the pleasure of self-fulfillment. The programme should develop among learners the skills for identifying, selecting, arranging and developing innovative methods and observing, manipulating and participating in work practices and thereby enhancing productive efficiency. At the upper primary stage, the learners are sufficiently mature to carry out strenuous work involving higher skills and requiring closer neuromuscular-coordination. The activities have to lead to enhancement in nutrition, personal and community health, sanitation, productivity and economic status of the community. Thus, activities may have three dimensions, observation of work situation and identification of task, participation in work situation, and preparing articles in large numbers. All activities need to be simple and enjoyable. At the secondary stage, the complexity of the activities needs to be increased keeping the nature of essential activities, by and large, the same. Pre-vocational courses will get a prominent place at this stage which will facilitate choice of the vocational courses at the higher secondary stage and help them acquire the knowledge and skills required for entry into the world of work

Art education constitutes an important area of curricular activity for development of the personality of the learners. The aim of art education may be perceived as development of aesthetic sensibility among learners so as to enable them to respond to the beauty in line, colour, form, movement and sound. At upper primary stage, art education programme should comprise, handling of the materials for drawing, painting, collage, clay modeling and construction of puppets; creating artistic things by free expression method and 75 specific topics method; handling

and playing of simple musical instruments and sound-producing bodies; movement, mime and simple dance forms; community singing; simple concepts of visual and performing arts; theatrical arts; stories of great personalities in the field of arts; and stories connected with other countries. Theater arts and dramatisation may be suitably introduced. Emphasis should be laid on the use of learner's own imagination and development of his/her own concepts and expression through exploration. He/she should be enabled to develop a sense of organisation and design, i.e., aesthetic arrangements permeating all life, and to feel a deep and lasting joy of art. The secondary stage is apt for refining aesthetic sensibilities and social values. Art education at this stage should comprise, study of visual and aural resources and their exploration; projects leading to creative expression and exhibition of the works in visual and aural forms; inter-group inter-school art activities; study trips and interaction with artists in the community; and exploration of traditional art forms including theatrical arts available in the community and neighborhood. Art education should not be fragmented. It should adopt an integrative approach at all stages up to Class X.

Health and physical education have to be concerned with total health of the learner and the community. It will include mental and emotional health besides physical health of the learners. The main aim of health and physical education programme should be to develop desirable understanding, attitude and practices with regard to nutrition, health and sanitation so as to improve health status of the self, family and the community. At upper primary stage keeping in view the characteristic physical growth, neuro-muscular coordination and social development, the learners may be exposed to vigorous developmental and rhythmic exercises, gymnastics, athletics, aquatics, judo, yoga, drill and marching, scouting and guiding camping and various team games and competitions. In health

education, provision should be made for creation among learners' awareness related to common health problems, safety measures, nutritional problems, adulteration, first-aid, sanitation and pollution. Exercises of breath and yoga should receive special attention. Physical education should include more vigorous activities of various sorts including athletics, major games including indigenous games, gymnastics, yogic 76 exercises, meditation, combative, judo and swimming. The NCC, scouting and guiding and social service should be encouraged in addition to the compulsory programs of physical education. In Classes IX and X, health education should enable the students to learn, in comparatively great detail, about personal health, impact of environmental pollution on health, food and nutrition, control and prevention of diseases, first aid, home nursing, and safety measures. The knowledge of and activities related to personal and community health assume great importance. An awareness of HIV and AIDS may be given. Students may also be acquainted with evils associated with promiscuity and child and drug abuse. Adolescence education and sex-education may also be provided in a suitable manner. It would be desirable to generate suitable self-instructional material in this regard for different age groups of learners addressing to their needs and requirements and matching to their level of growth and maturity. It should be provided to all learners. Provision for separate teacher and classes may not be encouraged. The whole approach should be such that each learner participates and learns ways of healthful living.

Unit-2

PHILOSOPHICAL PERSPECTIVES AND CURRICULUM ORIENTATION

Philosophical Perspectives in Education

Within the epistemological frame that focuses on the nature of knowledge and how we come to know, there are four major educational philosophies, each related to one or more of the general or world philosophies just discussed. These educational philosophical approaches are currently used in classrooms the world over. They are Progressivism, Perennialism, Essentialism, Reconstructionism and Reconceptualism. These educational philosophies focus heavily on what we should teach the curriculum aspect.

Progressivism

Progressivists believe that education should focus on the whole child, rather than on the content or the teacher. This educational philosophy stresses that students should test ideas by active experimentation. Learning is rooted in the questions of learners that arise through experiencing the world. It is active, not passive. The learner is a problem solver and thinker who make meaning through his or her individual experience in the physical and cultural context. Effective teachers provide experiences so that students can learn by doing. Curriculum content is derived from student interests and questions. The scientific method is used by progressivist educators so that students can study matter and events systematically and first hand. The emphasis is on process-how one comes to know. The Progressive education philosophy was established in America from the mid-1920s through the mid-1950s. John Dewey was its foremost proponent. One of his

tenets was that the school should improve the way of life of our citizens through experiencing freedom and democracy in schools. Shared decision making, planning of teachers with students, student-selected topics are all aspects. Books are tools, rather than authority.

- Emphasis on learning by doing – hands-on projects, expeditionary learning, experiential learning
- Integrated curriculum focused on thematic units
- Integration of entrepreneurship into education
- Strong emphasis on problem solving and critical thinking
- Group work and development of social skills
- Understanding and action as the goals of learning as opposed to rote knowledge
- Collaborative and cooperative learning projects
- Education for social responsibility and democracy
- Highly personalized learning accounting for each individual's personal goals
- Integration of community service and service-learning projects into the daily curriculum
- Selection of subject content by looking forward to ask what skills will be needed in future society
- De-emphasis on textbooks in favor of varied learning resources
- Emphasis on lifelong learning and social skills
- Assessment by evaluation of child's projects and productions

Perennialism

For Perennialists, the aim of education is to ensure that students acquire understandings about the great ideas of Western civilization. These ideas have the potential for solving problems in any era. The focus is to teach ideas that are

everlasting, to seek enduring truths which are constant, not changing, as the natural and human worlds at their most essential level, do not change. Teaching these unchanging principles is critical. Humans are rational beings, and their minds need to be developed. Thus, cultivation of the intellect is the highest priority in a worthwhile education. The demanding curriculum focuses on attaining cultural literacy, stressing students' growth in enduring disciplines. The loftiest accomplishments of humankind are emphasized– the great works of literature and art, the laws or principles of science. Advocates of this educational philosophy are Robert Maynard Hutchins who developed a Great Books program in 1963 and Mortimer Adler, who further developed this curriculum based on 100 great books of western civilization.

Perennialism focuses first on personal development, while essentialism focuses first on essential skills. Essentialist curricula thus tend to be much more vocational and fact-based, and far less liberal and principle-based. Both philosophies are typically considered to be teacher-centered, as opposed to student-centered philosophies of education such as progressivism. However, since the teachers associated with perennialism are in a sense the authors of the Western masterpieces themselves, these teachers may be open to student criticism through the associated Socratic method, which, if carried out as true dialogue, is a balance between students, including the teacher promoting the discussion.

Essentialism

Essentialists believe that there is a common core of knowledge that needs to be transmitted to students in a systematic, disciplined way. The emphasis in this conservative perspective is on intellectual and moral standards that schools should teach. The core of the curriculum is essential knowledge and skills and academic rigor. Although this educational philosophy is similar in some ways to

Perennialism, Essentialists accept the idea that this core curriculum may change. Schooling should be practical, preparing students to become valuable members of society. It should focus on facts-the objective reality out there--and "the basics," training students to read, write, speak, and compute clearly and logically. Schools should not try to set or influence policies. Students should be taught hard work, respect for authority, and discipline. Teachers are to help students keep their non-productive instincts in check, such as aggression or mindlessness. This approach was in reaction to progressivist approaches prevalent in the 1920s and 30s. William Bagley, took progressivist approaches to task in the journal he formed in 1934. Other proponents of Essentialism are: James D. Koerner (1959), H. G. Rickover (1959), Paul Copperman (1978), and Theodore Sizer (1985).

Essentialism tries to instill all students with the most essential or basic academic knowledge and skills and character development. Essentialists believe that teachers should try to embed traditional moral values and virtues such as respect for authority, perseverance, fidelity to duty, consideration for others, and practicality and intellectual knowledge that students need to become model citizens. The foundation of essentialist curriculum is based on traditional disciplines such as math, natural science, history, foreign language, and literature. Essentialists frown upon vocational courses. In the essentialist system, students are required to master a set body of information and basic techniques for their grade level before they are promoted to the next higher grade. The content gradually moves towards more complex skills and detailed knowledge. Essentialists argue that classrooms should be teacher-oriented. The teacher should serve as an intellectual and moral role model for the students. The teachers or administrators decide what is most important for the students to learn with little regard to the student interests. The teachers also focus on achievement test scores as a means of

evaluating progress. The essentialist classroom is centered on students being taught about the people, events, ideas, and institutions that have shaped American society. Essentialists hope that when students leave school, they will not only possess basic knowledge and skills, but they will also have disciplined, practical minds, capable of applying lessons learned in school in the real world. Essentialism is different from what Dewey would like to see in the schools. Students in this system would sit in rows and be taught in masses. The students would learn passively by sitting in their desks and listening to the teacher. An example of essentialism would be lecture based introduction classes taught at universities. Students sit and take notes in a classroom which holds over one hundred students. They take introductory level courses in order to introduce them to the content. After they have completed this course, they will take the next level course and apply what they have learned previously. English 101 and English 102 are a specific example of essentialism

Reconstructionism/CriticalTheory

Social reconstructionism is a philosophy that emphasizes the addressing of social questions and a quest to create a better society and worldwide democracy. Reconstructionist educators focus on a curriculum that highlights social reform as the aim of education. Theodore Brameld (1904-1987) was the founder of social reconstructionism, in reaction against the realities of World War II. He recognized the potential for either human annihilation through technology and human cruelty or the capacity to create a beneficent society using technology and human compassion. George Counts (1889-1974) recognized that education was the means of preparing people for creating this new social order.

Critical theorists, like social reconstructionists, believe that systems must be changed to overcome oppression and improve human conditions. Paulo Freire (1921-1997) was a Brazilian whose experiences living in poverty led him to

champion education and literacy as the vehicle for social change. In his view, humans must learn to resist oppression and not become its victims, nor oppress others. To do so requires dialog and critical consciousness, the development of awareness to overcome domination and oppression. Rather than "teaching as banking," in which the educator deposits information into students' heads, Freire saw teaching and learning as a process of inquiry in which the child must invent and reinvent the world.

For social reconstructionists and critical theorists, curriculum focuses on student experience and taking social action on real problems, such as violence, hunger, international terrorism, inflation, and inequality. Strategies for dealing with controversial issues (particularly in social studies and literature), inquiry, dialogue, and multiple perspectives are the focus. Community-based learning and bringing the world into the classroom are also strategies.

The educational aims of reconstructionism is that people act as change agents. They do not think that schools should be separate from society, and educators should be more involved in the social cause. Three ideas reconstructionist believe are world community, brotherhood, and democracy should be implemented in school and society.

Reconceptualism

Reconceptualism in a sense has two agendas. The first focuses on human concerns, emphasizing the psychological and social development of the human being. A basic premise is, the more the students understand themselves, the more they will understand the world. The second focus is on society, as the development of reconceptualism began in the late 60's and continued into the early 80's when

free speech, personal rights and other social issues such as emancipation and freedom from power structures were the focus of society.

In the seventies there was a great deal of controversy over the issue of whether or not the curriculum field is being revitalized through the development of a new movement in the field of curriculum studies. Pinar argues strongly that a new movement is indeed visible in the field. Some have termed it "reconceptualization" others "the new curriculum theory". The question what is this reconceptualization? The answer, to a considerable extent, the reconceptualization is a reaction to what the field has been and what it is seen to be at the present time.

A reconceptualist tends to see research as an inescapably political as well as intellectual act. As such, it works to suppress or to liberate not only those who conduct the research and those upon whom it is conducted but as well those outside the academic subculture. This political emphasis distinguishes the work of reconceptualists from the work of traditionalists and conceptual-empiricists. Curriculum development is political connected with a view of history and the contemporary social order.

Reconceptualism is based on existentialist and reconstructionist philosophies. Reconceptualists' principles are grounded in existentialism philosophy and humanistic psychology. Therefore, they tend to be trained in the humanities, and they developed in the late 60's and the beginning of 70's as a reaction to the conceptual empiricists who were so scientific, technological and behavioristic. In existentialism, reality is a world of existing, truth is personal choice, and goodness is freedom. Learning is highly personal and unique for each individual. Students need to learn how to process their experiences and get

meaning from them, in order to control and improve their lives. Reconstructionists are concerned with the relationship between school and society. Their effort is on using schools as a mechanism to reconstruct society. Schools exist to aid children in knowing themselves and their place in society, and the instructional objective is to improve and reconstruct society. Education for change and social reform.

1) Reconceptualists' view can be applied in any situation where the educational system does not consider students' needs and interests, and does not respect their intellectual abilities.

2) Curriculum trends: Equality of education; cultural pluralism; international education; futurism.

3) This view puts all people of the society in charge of the educational process, and gives all individuals the right to educate themselves in ways they believe appropriate to them, and meet their needs and interests.

4) It emphasizes the development of dialogue skills, critical thinking skills, problem solving skills, decision making skills and personal values clarification through an appropriate curriculum content to students' needs and interests.

5) It influences instructional theory, i.e.; teachers are responsible and should determine how to teach curriculum content so that these skills are developed. They are involved in curriculum planning and development.

6) Teaching strategies: Emphasize problem solving, critical thinking, and decision-making skills; process oriented, less focus on outcomes; heterogeneous grouping and integration of students by ability; teacher and students plan activities; students

learn on their own, independent from teacher; teacher-student dialogue, student initiates much of the discussion and activities.

7) Role of teacher: Questions, assists student in personal journey; arousing personal responses; an agent of change and reform; helps students become aware of problems confronting humankind;

8) According to the reconceptualists, curriculum content is less dictated by government and more determined by local school districts.

9) Curriculum focus: Child-centered; emphasizes subject matter of art, ethics, philosophy; skills and subjects needed to identify and ameliorate problems of society; learning is active and concerned with contemporary and future society; emphasis on social sciences and social research methods; examination of social, economic and political problems; focus on present and future trends as well as national and international issues.

10) Students are involved in deciding what they want to learn, and teachers as well as parents are part of the educational process.

11) Role of student: Active, determines own rule

Curriculum Orientations

Elliot Eisner's 5 Orientations to Curriculum (Eisner, 1970):

Academic Rationalism

- major function of school is to foster intellectual growth in subject areas that are most important

- all children should be introduced to basic fields of study in order to find what they're good at and interested in
- link with Idealist traditions — studying the "great books", etc.
- develop people's rational abilities
- Foster growth in subject matters most worthy of study, especially basic fields of study e.g., science • A “liberal education” for everyone, therefore, a common educational experience for everyone. “What’s best for the best is best for the rest”

Personal Relevance

- emphasis on personal meaning
- educational programs should be developed in collaboration with students
- in order for school experience to be educational students must have a stake in what goes on
- teacher's role is to provide enough structure and guidance for students to be productive
- A. S. Neill was a proponent of this orientation
- Children are individuals and require a personal buy-in • Teachers must establish a rapport with a student • People are stimulus seeking, therefore, provide a rich environment for growth • Child centered; the teacher as gardener or travel agent

Social Adaptation and Social Reconstruction

- derives aims and content from an analysis of the society in which school is situated
- focus on addressing societal needs and issues
- important to note that the Social Adaptation orientation is essentially conservative — serving the needs of various groups of society and maintaining the status quo
- the Social Reconstruction orientation focuses on developing critical consciousness — controversial issues are a major focus — geared towards social action.
- Social Adaptation

• Maintain the status quo and meet the social needs

• Career and vocation education so that one may fit in Social Reconstruction
• Focus on real problems with a view to do something about them
• Build a new, change and cope with the difficulties

Development of Cognitive Processes

- major functions of school are to (1) help children learn how to learn and (2) provide children with opportunities to use and strengthen variety of intellectual processes
- generally, views mind as made up discrete and relatively independent abilities

- emphasizes process over content
- curriculum focus tends to be problem centered
- Development of Cognitive Processes • Help children learn how to learn • Use and strengthen the intellectual facilities through process

Curriculum as Technology

- views curriculum planning as a technical task — a means-ends approach
- accountability movement is representative of this orientation
- Benjamin Bloom, Hilda Taba, Ralph Tyler, and John Dewey all advocated such an approach
- Curriculum as Technology • Once ends have been formulated, establish the means to get there • A planning model, very sequential • Chart progress towards specific objectives • Images of this curriculum include a staircase with few landings and no hallways feeding into it or an efficient machine

In general, either one or a combination of these five orientations dominates teachers' and schools' approaches to curriculum. In order to clarify and create a consistent curricular approach, it is important to identify which of these orientations are important, the proceed to enact these approaches in a consistent manner.

This work by Elliot Eisner was quite significant in providing teachers and curriculum developers with insights into understanding curriculum. However, since that time, a great deal of change has occurred, including the emergence of new theories and understandings of curriculum. Although these five orientations are still quite evident in schools, we can add a few

new possibilities to the list. The following list suggests new orientations that may involve some of the ideas embedded in Eisner's five orientations. These orientations are infrequently encountered in a pure state although commonly one dominates. Context is critical to any given situation.

UNIT – III

CURRICULUM AND PEDAGOGY IN THE PERSPECTIVES OFEDUCATIONAL PIONEERS

Sri Aurobindo Ghose, J.Krishnamurthi, S.Radhakrishnan, Swami Vivekananda, Plato, Socrates, Herbart, Aristotle, Bertrand Russell , Sri Thomas Percy Nunn, Desiderius Erasmus Roterodamus , Paulo Freire and David Kolb.

3.1 Sri Aurobindo Ghosh

Introduction

On 15 August 1872, Sri Aurobindo Ghosh was born in Calcutta. He was a spiritual master, a revolutionary, a poet, a philosopher, and a writer. His entire thought and work centred on the evolution of consciousness and an attempt to integrate all facets of life. His idealistic philosophy of life was founded on the Upanishads' Vedantic philosophy. He placed a premium on spirituality, penance, yoga practise, and Brahmacharya as necessary components of advancing the principle of human soul development. According to Aurobindo, true education is that which provides a free and creative environment for the child and ultimately results in the development of his spiritual power through the development of his interests, creativity, mental, moral, and aesthetic sense.

Integral Education:

According to Sri Aurobindo, integral education is the key to this collective inner change; it is the key to true world progress and a better future for all humanity. His system of integral education is rooted in India's developing soul, in her future needs, in the magnificence of her forthcoming self-creation, and in her eternal spirit (Sri Aurobindo, 1952). As he states, education is intended to bring out the best in man, to maximise his potential, to integrate him with himself, his surroundings, his society, his country, and humanity in order to develop him into a "complete man," a "integrated man.

According to him, education is a means by which the spirit can manifest itself in the mind and body of both the individual and the nation. He defined education as that which focuses on the development of the soul and its powers and possibilities, because the nation will prioritise the preservation, strengthening, and enrichment of the nation's soul and Dharma (virtue), transforming both into life-giving powers and ascending mind and soul of humanity. According to Sri Aurobindo, "children should be assisted in maturing into straightforward, forthright, upright, and honourable human beings capable of developing into divine nature."

Physical and Moral Education:

Sri Aurobindo emphasised the importance of physical health as a prerequisite for intellectual or spiritual attainment. Physical education, he believes, encompasses not only the proper functioning of the body's various organs but also the development of strength, balance, and an appreciation for beauty. According to him, beauty is the ideal that physical existence must strive to achieve. As a result, 'a significant part of our objective must always be the development of physical consciousness.

Aurobindo asserts that education of the intellect apart from the perfection of the moral and emotional nature is detrimental to human progress. He makes a distinction between the heart and the mind, stating that instructing the mind is not the same as instructing the heart. Sri Aurobindo emphasises the value of Suggestion and deprecates imposition in moral education. 'The first rule of moral education,' he asserts, is to suggest and invite rather than to command and impose.

Aim of education:

According to Sri Aurobindo Ghosh, the aims of education are the following.

- Without complete physical and spiritual development of a child, no spiritual development is possible. In this sense, physical development and purification serve as the foundations for spiritual development.
- 2.To develop all senses, specifically hearing, speaking, listening, touching, smelling, and tasting. Prior to any development, it is necessary to achieve purity of senses through education.
- To aid in the child's mental development. Mental development entails the growth of all mental faculties, including memory, reasoning, imagination, and discrimination.
- To help the child develop morally. Mental development becomes detrimental to human progress in the absence of moral and emotional development. Sri Aurobindo believes that children's hearts should be developed in such a way that they demonstrate extreme love, sympathy, and consideration for all living beings.
- To cultivate the conscience. It consists of four levels, according to him: Chitta, Manas, Intelligence, and Knowledge. A teacher's objective should be to develop all four levels harmoniously. This will aid in the maturation of conscience.
- To foster spiritual growth. Each human being, he asserts, possesses an element of divinity. Education should seek it out and nurture it to its full potential.

Curriculum:

Curriculum includes Mother tongue, English, French, Literature, National History Art, Painting, General Science, Social Science and Arithmetic at Primary Stage. English, Mother tongue, French, Arithmetic, Art, Chemistry, Physics, Botany, Physiology, Health Education and Social Studies are included at Secondary Stage.

At University Stage, the curriculum includes Indian and Western Philosophy, History of Civilization, English Literature, French Literature, Sociology, Psychology, History of Science, Chemistry, Physics, Botany, International relations and integration. It is also mandatory for all students to take yoga, arts, crafts and music lessons through Primary and Secondary school apart from regular curriculum.

Principles of Teaching:

Sri Aurobindo wrote in 1909-10, He enunciated three fundamental principles of teaching.

- The fundamental tenet of authentic teaching is that nothing can be taught. The teacher is not an instructor or taskmaster; rather, he is a facilitator and guide. His role is to make suggestions, not to impose'.
- The second principle is that the mind's growth must be consulted'. He emphasised that hammering the child into the shape desired by the parents or teacher is a barbaric and ignorant superstition. He warned that coercing nature to abandon its own dharma would permanently harm it, mutilate its growth, and deform its perfection, and that no greater error could be made than for parents or teachers to pre-arrange for a given student to develop particular qualities, capacities, ideas, or virtues or to be prepared for a pre-arranged career.
- Sri Aurobindo's third principle of education is that education must begin with direct experience and that even abstract and remote concepts should be brought into the realm of experience. Knowledge must be a progressive process that progresses from personal experience to larger, more intense, and higher experiences.

Conclusion

Children should be allowed to roam freely and should be treated with the utmost kindness, sympathy, and consideration. He emphasised the importance of imparting education to children in their native language in order for students to easily grasp and comprehend even the most difficult subjects. According to him, education should be tailored to the child's interests and temperament. He argued that a child should be given the opportunity to learn through his or her own efforts and experiences. This results in lifelong

learning and will benefit him in the future. According to him, the most effective method of learning is through experience. He placed a premium on teacher-child collaboration throughout the educational process.

J. KRISHNAMURTI

Introduction

Education has been a source of contention for philosophers since time immemorial. J. Krishnamurti, an eminent philosopher and world teacher, shares this concern with all other philosophers. He discussed the difficulties inherent in modern society's violence and corruption, the individual's search for security and happiness, and the imperative for humanity to liberate itself from inner burdens of fear, anger, hurt, and sorrow, as well as marriage, relationships, meditation, and peace. His primary concern is education, which he believes is inequitable. Krishnamurti was adamantly opposed to the prevalent rotten education system, believing that if it is promoted, it will breed a fragmented man afflicted with disease, i.e. a greedy, envyful, selfish, cunning minded man capable of destroying the world of peace.

Krishnamurti's Philosophy of Education

Education is a critical medium for putting a thought or idea into practise. As a result, almost every philosopher, whether Rabindranath Tagore, Gandhi, Dewey, Ivan Illich, or Maria Montessori, has used this technique to bring their philosophy to life, and Krishnamurti was no exception. Through his experiments, Krishnamurti gave concrete form to his thoughts. Because Krishnamurti views the prevalent educational system as flawed or ineffective, his educational philosophy is commonly referred to as 'Right Education' or 'Right Kind of Education'. Krishnamurti discusses the proper environment, the proper functions of education, the proper curriculum, the proper methods of instruction, the proper teachers, and the proper school, all of which contribute to Krishnamurti's Right Education.He reflects his educational philosophy in a number of his books, the most notable of which are 'Education and the Significance of Life,' 'On Education,' 'Life Ahead,' and Letters to the School.

Krishnamurti's Concept of Education

According to Krishnamurti, education is not about "acquiring mere techniques or skills, but about educating a person to live with great art." That includes not only technological knowledge... but also the vast and limitless field of the psyche, and the education that goes beyond it, which is holistic education..." He continues, "education means

a holistic approach to life, cultivating the brain technologically... and also cultivating the brain to be free of its own petty little self." (Krishnamurti, 1984). (Krishnamurti, 1984). Here, the term 'petty little self' refers to a mind filled with hatred, jealousy, anger, fear, ignorance, and narrow thought-feeling, and such a mind is incapable of comprehending the whole. As a result, it is necessary to liberate oneself from all dogmas, psychological impediments, compulsion, fear, conflicts, and established patterns in order to develop a clear, critical, innovative, and integrated perspective. And education that fosters such a positive outlook is the proper type of education.

Aims of Education

Physical Development

"If the body is not in good health and vitality," Krishnamurti stated, "it will invariably distort thought and result in insensitivity." That is, if our physical health is compromised, it is impossible to imagine our mental or emotional well-being, as the two are inextricably linked. Children receive a nutritious and balanced diet at Krishnamurti Schools; the schools are surrounded by a natural environment that helps children feel refreshed; and numerous physical activities are conducted for the children's benefit and development.

Development of Fearless Individual

The current educational system enslaves children and instils fear in them. The prevalent system employs fear as a means of obtaining a good grade or a job. Fear drives the child toward rote learning, and his inborn capacity for thought gradually deteriorates. His mind becomes so conditioned that he fears thinking, he fears what others think, and he fears going against what others say. As a result, the child mind is perpetually in conflict and lacks freedom—freedom to think differently, freedom to express himself, freedom from fear, freedom from other people's ideologies, and freedom from conditioning, to name a few. As a result, Krishnamurti emphasised the importance of developing fearless individuals.

Development of New Values

According to Krishnamurti, one of education's functions should be to "create new values," but our current educational system is failing to do so. Rather than that, it simply imprints the child's mind with ancient and vanished values, without realising their relevance in the twenty-first century. Today, incorrect values are prevalent, and education reinforces them. These values include money, position, and authority. It is simply conditioning the child to conform to ideals, i.e. conditioning him without arousing his intelligence.

Development of Creative Individuals

Krishnamurti is vehement in his criticism of the conventional educational system, which promotes a repetitive attitude and is only interested in producing obedient, unquestioning, but effective individuals. In the pursuit of mediocrity and material success, creativity is stifled. Thus, in Krishnamurti's view, education should provide opportunities for children to think beyond established boundaries and cultivate divergent thinking. This enables children to develop a sharp outlook and the ability to consider all facets of a subject and come up with their own novel and correct ideas.

Right Vocational development

Though Krishnamurti is critical of technical education, he does not completely dismiss it, as he was well aware of the difficulties, complexities, and necessity of survival in life. However, he criticised the educational system in which children are told or compelled to pursue a particular profession regardless of their capability, ability, or interest. Such acts endanger the lives of children. Many children commit suicide simply because they have lost their peace of mind and are dissatisfied with the profession into which they have been pushed. Thus, according to Krishnamurti, education should seek to identify a child's talents and interests and then direct the child toward a career in which he is interested and fulfilled. Thus, the purpose of education should be to assist the student or child in discerning his or her highest interests and developing his or her capacities in order to discover one's true vocation.

Curriculum

Krishnamurti proposed an integrated curriculum that would ensure the child's complete or holistic development. He is extremely concerned about the environment, which is why he advocated for combining environmental studies with other subjects. Environmental studies is a distinct subject in his educational institute. Along with other subjects, he recommended various other activities such as art and craft, dance and music, dramatics and debates, swimming, sports, athletics, gardening, and yoga.

Methods of Teaching

Krishnamurti did not prescribe any particular method; rather, he delegated this responsibility to teachers, who were to devise their own in response to the circumstances, as he believes that teaching is not a technique but a way of life.

- Principle of fearlessness
- Principle of freedom
- Principle of self-knowledge
- Principle of integration/wholeness

- Principle of co-operation
- Principle of critical thinking

Discipline

Krishnamurti advocates self-discipline

Teacher

According to Krishnamurti, we require integrated educators because only this type of educator can develop integrated individuals. "A teacher is not merely a dispenser of information," he writes, "he is one who points the way to wisdom, to truth."

DR.SARVEPALLI RADHAKRISHNAN

Introduction

On September 5, 1888, Dr. Sarvepalli Radhakrishnan was born. He was an academic, philosopher, and statesman. In the twentieth century, Radhakrishnan was one of the most well-known and influential Indian thinkers in academic circles. He was an exemplary and beloved educator who grasped the fundamental issues of education. His report to the 'University Commission, 1948-1949' enlightens us about his educational ideas and is widely regarded as his greatest contribution to education.

Contribution in Education:

Meaning of Education

Dr. Radhakrishnan places a premium on education. True education has the potential to solve many of the country's problems, as it is not just information that becomes wisdom, but knowledge that becomes wisdom. Which enables one to distinguish between right and wrong and effect positive changes in one's life. As a result, Radhakrishnan refers to education as a "means of social, economic, and cultural transformation." Education is not only about acquiring knowledge and skills; it is also about teaching us how to live with others; it is about instilling the art of living; instilling love for others; instilling creativity and critical thinking in order to deal with adverse situations. In short, education is a second birth for man. " Physically, mentally, and spiritually, education completes a man. "To be complete, education must be humane," Radhakrishnan stated. "It must include not only intellectual training but also heart refinement and spiritual discipline." No education can be considered complete if the heart and spirit are neglected".

Aims of Education

In Radhakrishnan's opinion, the aim of all education is man-making.

Personality Development

Develop in students an appreciation for sustained thought, adherence to truth, and the ability to resist popular sentiments and mob passion. He emphasised the importance of an individual's balanced and ideal personality development.

Formation of Character

Character development is critical to all aspects of education. The true character of a man cannot be determined by his great accomplishments; rather, it is determined by his everyday actions. Thus, education should instil the values of love, truth, goodness, and beauty in children from the start.

- **Development of Secular Attitude- i.e. respect for all religions.**
- **Development of Vocational Efficiency/ Vocational Training-** enables the child to attain certain skills in order to become economically self-sufficient. He favored imparting vocational courses.
- **Training for Leadership**
- **Development of Scientific Attitude**
- **Preservation, Enrichment and Transmission of Culture-** A country enriched in culture is advanced in many respects. Education has to play a key role to preserve, enrich, transmit and modify the culture of a country.
- Cultivation of Social and Moral Values- Civic responsibility, faith in democracy, non-violence, truth, unity and feeling of brotherhood.
- Nurturing Democratic Values- Liberty, Equality, Justice, Brotherhood
- Development of Spirituality (Spiritual Values) - Without a spiritual bent of mind, the physical and intellectual development of a person remains stunted. For Radhakrishnan, human development should not be confused with the acquisition of mechanical skills or intellectual information. It is the development of spirit in man. Education should develop human attitude and manly spirit through the refinement of heart and development of good habits.
- Development of Nationalism and International Understanding

Curriculum

- Curriculum must be related to life.
- He wants that a student should study a number of subjects such as: Languages, Literature, Social Studies (Geography, History, Economics etc.), Philosophy, ethics, theology, Morality, politics, civics, Science (Natural, Human etc.), Mathematics, Art/Music/Fine Arts, Vocation / Profession Subjects (Agriculture, Law, Medicine, Trade and Commerce, Home Science, Typewriting, Poultry, Dairy farming, Short Hand, Gardening, Book- Binding, Engineering,

Carpentry, Tailoring, Social Service etc), Sports and Physical Education, Yoga, Community service and social service.

- Participation of students in NCC and NSS, Guide Scout should be encouraged.
- He has suggested the study of three languages- Mother tongue / Regional Language, Federal Language Hindi and link language English.
- He suggested study of Sanskrit to understand indigenous culture
- For women education, he suggested the subjects - Literature, History, Science, Religion, ethics, Puranas, Housekeeping, Arts, Sewing, Domestic work, home science, child rearing, worship, meditation and studies inculcating ideal characters in the women.

Methods of Teaching

- Reading Method
- Writing Method
- Explanation Method
- Meditation Method
- Text Book Method
- Tutorial Instruction Method
- Seminar Method

Co - curricular activities

Radhakrishnan has advocated different co-curricular activities to be practiced by the student in the institution to utilise leisure time properly and purposefully. Participation of student in NCC and NSS guide etc should be encouraged. He believes in the Motto, "service to mankind is service to God".

Medium of instruction

The problem of National language caused controversy among the educationist for many years. There was a revolution country to replace English by an Indian language. Radhakrishnan proposes "three language formulas" like that local language, national language and international language.

Women Education

Radhakrishnan emphasised women's education in a variety of ways. According to him, women are the civilization's missionaries. Radhakrishnan aspires to give women a prominent position in society. To him, general education should be provided to enable citizens to live intelligently. Males and females are equally capable of academic work. Through a variety of equally pertinent and significant subjects. No society can progress satisfactorily if women

remain backward. He believed that mothers have enormous responsibilities in the education of their children, as children learn from their mothers' ideas and attitudes.

Role of Teacher

Radhakrishnan was unambiguous about the role of teachers in the educational system. "The type of education we provide for our children is largely determined by the men and women we hire as teachers," he asserts. In every society, teachers are revered. A true teacher is revered throughout the world. Teachers play a critical role in shaping the minds and hearts of children and adolescents.

Discipline

Radhakrishnan believes that a lack of self-control results in a decline in academic, character, and integrity standards. Without discipline, yoga and spiritual activities are impossible. He was a believer in discipline as a means to self-realisation. The hysteresis is that students should be taught to approach lighting problems with the fortitude, self-control, and sense of balance that the new circumstances necessitate.

SWAMI VIVEKANANADA

Introduction

Swami Vivekananda (12 January 1863 – 4 July 1902), born Narendranath Datta, was an Indian Hindu monk and a leading disciple of Ramakrishna, a nineteenth-century Indian mystic. He was a pivotal figure in the introduction of Indian philosophies such as Vedanta and Yoga to the Western world, and is credited with fostering interfaith understanding and elevating Hinduism to the status of a major world religion in the late nineteenth century. Vivekananda established the Ramakrishna Math and Mission. He is perhaps best known for his 1893 speech at the Parliament of the World's Religions in Chicago, which began, "Sisters and brothers of America...," in which he introduced Hinduism. Following Ramakrishna's demise, Vivekananda travelled extensively throughout the Indian subcontinent, gaining firsthand knowledge of the conditions in British India. He later travelled to the United States, where he represented India at the 1893 World Parliament of Religions. Vivekananda delivered hundreds of public and private lectures and classes throughout the United States, England, and Europe, disseminating Hindu philosophy's tenets. Vivekananda is revered as a patriotic saint in India, where his birthday is observed as National Youth Day.

Principles of Teaching and Learning:

Swamiji does not consider information to be an educational tool. He advocates for a form of education that focuses on man-making, life-building, and character development.

Additionally, education should aid in the development of originality. It should reveal all of man's hidden abilities. A child should learn to regard pleasure and pain, misery and happiness as equally important factors in character development. Man-making education is ingrained in both character and vocational development. What India requires today is character and a resolute will. This can be accomplished through the provision of man-making education.

Man-making education also highlights the significance of Vivekananda's famous words at the World Parliament of Religions in Chicago in 1893.These were, "HELP, ASSIMILATION, HARMONY and PEACE". Accordingly education should develop these qualities in man.

Physical and health education are included in man-making education. He was also passionate about proper body care and the development of one's physique. "Be strong, my young friends," he urged. Football will bring you closer to heaven than the 'Gita'. These are audacious words, but I feel compelled to say them to you. I am aware of the shoe's pinch point. You will gain a better understanding of the 'Gita,' and your biceps and muscles will become slightly stronger". "Strength is goodness," he repeated repeatedly. "Weakness is sin." Following are the chief elements of man-making concept for which education should be directed to:

- A person must possess a thorough understanding of Vedant philosophy, which holds that the ultimate goal of human life is to achieve Unity with the creator.
- Development of a spirit of service to other beings, because service to man is synonymous with devotion to God.
- Developing an attitude of respect for all religions. All religions share fundamental elements. No religion is superior to another.
- The concept seeks to instil in man an attitude of love for all and hatred for none.
- Attainment of scientific and spiritual knowledge.
- Developing a rational attitude in life without regard for cultural distinctions between East and West. vii. Social equality is attained.
- Development of such individuals who are morally upright, intellectually sharp, physically strong, religiously liberal, socially effective, spiritually enlightened, and self-sufficient in their vocational endeavours.

Swami Vivekananda's views on education may be summed up in his own words, "We want that education by which character is formed, strength of mind is increased, the intellect is expanded and by which one stands on one's own feet".

Swamiji's contribution may be summed up as under:

- He emphasised the importance of character development education.
- He argued for mass education, which he defined as adult education and universal, free, and compulsory education regardless of caste, creed, or colour.
- He reintroduced humanism into education.
- He insisted that it was the upper classes' responsibility to come forward and uplift the poor through education and other means.
- He viewed education of women as the primary means of regenerating the nation.

Curriculum

Swamiji did not specify any subjects as the basis for educational content; rather, he took a broad approach, a sort of synthesis of science and Vedanta. He asserted that it cannot be purely occidental. Curriculum should be developed with the goal of instilling leadership qualities in the next generation. Swamiji believes that education should foster patriotism and individual liberty. To accomplish this, the curriculum should include the following three components:

- Love for the motherland
- A strong will to desist evil and
- Steadfastness in achieving the desired goal.

Vivekananda emphasised the importance of physical education in the curriculum. He argued that a physically strong individual can achieve self-realization. He desired that Indian students learn their native tongues, particularly Sanskrit and English, in order to keep up with the times. He was a proponent of Vedanta, Religion, Philosophy, and Theology study. He also desired subjects in science, engineering, and technology. Above all, he desired that the curriculum meet the needs and expectations of the masses.

A. The Subject-Centred Curriculum

One of the long-standing criticisms levelled at traditional curricula and curriculum as organised knowledge is that they fail to teach the processes by which disciplines are discovered, communicated, and applied. The contemporary emphasis on the mental processes associated with a subject differs from its forerunners in that it implicitly assumes that lower-level skills must be acquired before higher level skills. The apex of cognitive activity is problem-solving. These procedures demonstrate that students are active participants in the acquisition of knowledge, rather than passive recipients.

B. Student-Centred Curricula

Curricula that are student-centered are the result of efforts to personalise the content, sequence, and processes of learning. This makes the methods and assumptions used to construct curricula more explicit, and they may become part of the curriculum. The curriculum is something that teachers create for their students, rather than something that students create in collaboration with teachers. Numerous attempts have been made to develop more student-centered curricula than subject-centered curricula. In some cases, the student is expected to organise his or her own course of study in accordance with his or her interests and needs, with the assistance of a tutor.

Teaching Methods

Swamiji emphasised the importance of meditation as a means of acquiring knowledge. He argues that because the human mind is perfect in and of itself, it is not dependent on external knowledge. Thus, learning is nothing more than the process of knowledge discovery within the mind. He has, however, suggested that the following teaching methods be used in a teaching-learning situation.

Concentration Methods: Swamiji believes that concentration is the only way to attain knowledge. It is the key to the knowledge treasure house. Concentration training teaches the child to withdraw his various senses from life's temptations and focus exclusively on the subject matter of instruction. He believed that Brahmacharya was required for the development of concentration. "Brahmacharya should be the blazing fire within the veins," he stated.

Methods of Realization: Vivekananda views realisation as the primary objective of life. He espoused Yoga as the most ideal path to enlightenment. There are four types of yoga. Karma Yoga, Bhakti Yoga, Raja Yoga, and Jnana Yoga are the four types of yoga. All of these Yogas have the same objective – to eradicate ignorance and enable the soul to revert to its natural state.

Discussion and Contemplation Method: Borrowing from the ancient Indian gurukula system of education, Vivekananda also advocated for the inclusion of discussion and contemplation in education.

Imitation Method: Children enjoy imitating others' actions. As a result, Vivekananda advocated for utilising such characteristics of children for educational purposes. A teacher should model higher ideals and nobler patterns of behaviour for children to emulate in order to develop their character and personality.

Individual Guidance and Counselling: Vivekananda advocated for the use of individual guidance and counselling as a method of developing divine wisdom during the teaching-learning process.

Lecture Method: Spiritual concepts are ill-defined. A child's comprehension of spiritual doctrines becomes increasingly difficult as they grow older. As a result, Vivekananda advocated for the introduction of the lecture method in order to effectively communicate spiritual concepts to students.

Activity Method: Swamiji regarded activities-based learning as the optimal method of instruction. It can provide children with direct experience. He argued that students should participate in activities such as singing, storytelling, drama, and dance. He also advocated for the inclusion of activities such as excursions and camps to help students appreciate the value of community service.

Role of Teacher

According to Vivekananda, the nature of the human mind is such that "no one is ever truly taught by another." Each of us must be his or her own teacher". All knowledge resides within man and requires only awakening, which is the teacher's responsibility. They need to do as little as possible for the students in order for them to develop the ability to apply their own intellect to the proper use of their hands, legs, ears, and eyes, and eventually everything will become natural. He desires that a teacher be like a father, giving spiritual birth to his students and guiding them on the path to eternal life. He should initiate students into the practise of the brahmacharya and shraddha essential virtues. To paraphrase Swamiji, "a true teacher is one who can instantly descend to the level of his students and transfer his soul to theirs."

Vivekananda is a devout follower of the 'Gurugriha Vasa'. True education is only possible when the teacher and the pupil have an intimate personal relationship. "My concept of education is personal contact with the teacher – 'gurugraha vasa,' he states. Without a teacher's personal contact, there is no education". Swamiji advocates for the following characteristics in a teacher. (A teacher must be a tyagi or renunciant. He should act as a parent figure for the students. He should have genuine affection for his students, as this will aid him in transmitting spiritual force.

- He should lower himself to the level of his students and show empathy for them.
- He should have a high moral character and be sinless. He must be pure of heart and mind.

Discipline

Discipline, according to Vivekananda, is a critical aspect of a person's character. He believed that instructing or disciplining a child from the outside is a myth. We cannot see what is not within. Whatever we are is the result of our mind and body being disciplined. He wishes for each of us to educate ourselves. The external educator makes suggestions, and the internal educator gets to work. Excessive domination and authority will only stunt a child's natural growth. "If you do not allow a child to grow into a lion, he will grow into a fox," he stated. The number of do's and don'ts must be reduced, and the appropriate environment must be created.

When an individual is completely influenced by positive tendencies, his good character is said to be established. Rather than attempting to discipline the child, the teacher can serve as an example through his or her own life. Children absorb more information from their teachers than from books and lectures. Thus, discipline is something that must be caught rather than taught.

Vivekananda was a great educator who revolutionised nearly every aspect of education. His educational views were profoundly influenced by Vedanta's eternal truths. His revolutionary ideas about education inspired millions of Indian youths. He issued the clarion call, "Arise, awake, and do not rest until the objective is attained." He imbued the national blood with a new spirit. He was an outspoken proponent of national education along national lines and based on national cultural traditions.

Conclusion

Vivekananda's significant contributions to education include self-knowledge, self-reliance, concentration, universal mass education, women's education, physical education, man-making education, character-building education, mother tongue education, religious and moral education, value education, and selfless dedicated teachers. Swamiji's teachings are critical in reorganising our current educational system.

PLATO

INTRODUCTION

Plato (427-347 BC) was the most influential Greek philosopher and educator of his period. He was born into an upper-class family in Athens; he initially pursued a political career, but after the death of his teacher Socrates, he devoted himself to his teacher's philosophy. Plato's given name was Aristotle, which translates as "the best" and "famous." In his youth, he was given the name Plato due to his broad shoulders. Plato travelled to Egypt and Italy for educational purposes, where he studied mathematics. After his return to

Athens, he founded an Academy to teach moral values to the city's elite youth in order to develop them into better leaders.

Plato demonstrates his ability to write in a variety of disciplines, including ethics, music, drama, poetry, metaphysics, dance, and architecture, all of which are ideal forms of government. Plato made little contribution to scientific subjects, but his ideas about education inspired his disciples to explore new dimensions in education. Plato believes in not only improved education for men, but also in a strong body and a sound mind; for the body, he recommends sports, and for the mind, music. "No man should bring children into the world unless he is willing to persevere to the end in their nature and education," he says.

EDUCATIONAL PHILOSOPHY OF PLATO

Reality:

Plato believed in a dualistic view of reality. He distinguished two distinct "worlds," the physical and the world of ideas. He argues that the world of ideas is more real than the physical world. He explained the relationship between the two through the allegory of the cave.

Knowledge:

Absolute, unchanging, and perfect truth exists and is discoverable via reason and intuition. According to Plato, intact truth is already present in one's mind (innate) and is waiting to be extracted through a dialectical process. The teacher functions as a midwife of the mind, eliciting innate Truths from students through provocative questions.

Value:

Moral concepts exist in the world of ideas; consequently, certain values are absolute. That is, they are not created by humans but exist independently of them. Our task is to ascertain the appropriate values and to live by them. According to Plato, knowledge equals virtue, and thus one attains virtue by cultivating one's mind and discovering Truth.

Pleasure:

Plato discusses three distinct levels of pleasure. The first type of pleasure is sensual or physical. A second level of pleasure is sensual or aesthetic, such as admiring someone's beauty or enjoying one's marriage relationship. However, the highest level of pleasure is ideal pleasure, or mental pleasures. Platonic love is an example of intellectual love for another person that is not tainted by physical involvement. Three souls correspond to these three levels of pleasure. We have a single soul called appetite, which is impermanent and originates in the gut. The second soul is referred to as spirit or bravery. Additionally, it is mortal and

resides in the heart. Reason is the third soul. It is immortal and is housed within the brain. The cerebrospinal canal connects the three.

Political implications:

A good society is not one in which everyone is equal, but one in which each person fulfils the role for which he was born. People who are rational are suited to rule; people who are spirited are suited to protect; and people who are appetitive are suited to work. Plato opposes democracy because it endows the irrational with the same political authority as the rational.

Education for All:

Plato advocates for universal education, which includes all members of the guardian class. He desires that each boy and girl be educated to the full extent of their abilities.

Aims of Education:

The aims of Platonic education are the following

- To produce future servants of the state.
- To develop virtuous intellectuals among the future rulers.
- To glorify courage and military skill among the warriors.
- To develop competent, obedient, and temperate workers.
- To develop a social disposition among all citizens.
- To train the character of each citizen so that he may control his appetites, subordinating the senses to reason.

The ultimate goal of education, according to Plato, is to instil knowledge of the good in order to mould a man into a better human being; this is not merely an awareness of particular benefits and pleasures.

Organization and Curriculum:

A platonic curriculum would place a premium on studies that foster reasoning abilities and elevate one's thoughts above the mundane. As a result, platonic curricula have historically placed a premium on the humanities and mathematics. They have placed a

significantly lower premium on physical education, natural sciences, and vocational studies, all of which are rooted in the physical rather than the intellectual world.

Plato's curriculum is composed of gymnastics and music, with gymnastics encompassing physical training and music encompassing broad terms such as drama, history, oratory, and music in its most literal sense. He establishes distinct stages for the organization's and curriculum's development.

Elementary School:

All boys and girls would be educated together. They would study mathematics, literature, poetry and music until they were eighteen years of age.

Military Training:

The following two years of a child's life would be devoted entirely to physical education. Following that, the best youths would be chosen for future higher education.

Guardians of the state.

Higher Education: Between the ages of twenty and thirty-five, the Future Guardian would receive additional education to prepare him for state leadership. Mathematics, music, and literature would be among his subjects of study. At thirty, he would be mature enough to begin his study of philosophy. At the age of thirty-five, he would complete his formal education and take on a minor administrative position before moving on to more significant governing positions.

Teaching Methods:

Plato lectured, utilising his vast knowledge to present his students with an organised body of information. Additionally, he employed Socratic dialogue as a method of scientific investigation and instruction. At times, problems were assigned on a case-by-case basis.

Plato advocated for the use of play in elementary school; students should learn through experience. And as he progressed in education, his reason would be trained in thinking and abstracting processes. Plato desires motivation and an interest in education. He opposes the use of coercion in education. Compulsory knowledge takes hold of the mind."

Stages of Education:

In his Republic, Plato discusses the various stages of education. According to Plato, education should begin at the age of seven, and children should remain with their mother or elders to receive moral education. After the age of six, girls and boys should be separated, with boys playing with boys and girls playing with girls. They should also be taught to use different arms. This period lasts until the age of seventeen. They should consider music and

early education during these years. After seventeen years of age, youth should be brought to battle fields to gain real-world experience.

The fourth stage begins between the ages of twenty-five and thirty years, during which time they receive training in mathematical calculation for an additional ten years; upon completion, selected individuals are admitted to the study of dialect. They study dialect for another five years during the fifth stage, and then at the sixth stage, one is prepared to become a ruler and philosopher and enter practical life.

Women Education:

Plato placed a premium on female education. He argues that women should receive the same education as men in order to be as good as possible. They should be provided with both physical and educational training. Women should engage in the same pursuits as men, including state guardianship, philosophy, and warfare. Plato believed that women are equal to men and that, while some women are physically smaller or weaker than men, others are physically equal to men; thus, those women who are physically strong should be permitted to learn the same skills as men. Plato described in his book Republic how male and female members receive the same education and are assigned the same responsibilities in society as male members. These are the individuals who will lead the republic, which will be an ideal society in which philosophers reign as kings. In other words, they understand what is best for the people and for humanity and base their decisions on that understanding.

Moral Ethics:

The most vital branch of philosophy is ethics. Plato devotes particular attention to men's moral and ethical education; later in his life, Plato broadened the scope of his investigations by reflecting on not only the social and political contexts of morality, but also on the theological and metaphysical presuppositions of a successful moral theory.

In his Republic, Plato discusses his vision for an ideal society and details the curriculum and educational system. According to Plato, the ideal society is one that cares for its youth and holds parents accountable for their children's moral education. Every individual would be aware of his or her duties and responsibilities.

SOCRATES

INTRODUCTION

Socrates (469–399 B.C.E.) is widely regarded as the originator of Western philosophy. He was Plato's teacher, a highly influential thinker whose numerous works are still extant and who frequently refers to and contrasts his own teachings with those of

Socrates. Another reason for his renown as the "Father of Western Philosophy" is that he exemplified the philosophical attitude of detached and unaffected intellectual reflection, moral courage, and an educator's spirit, to name a few. He was a street thinker who did not seek monetary compensation for his teaching (unlike the Sophists), and he was universally recognised as being unique. As a result, he was able to attract the brightest minds and most committed individuals to his group of students. We know that he instilled in his students a philosophy of clarity. It gained the attention and respect of the world's thinking men as a result of his own teachings and those of his immediate disciples, most notably Plato and Aristotle. This clarity drew the entire Western world to him through his followers.

THE SOCRATIC DIALECTICAL METHOD

As self-styled teacher to the people on the streets and the inquisitive who sought him out, Socrates spent the majority of his adult life developing a philosophy to teach those who joined his dialogue discussion groups. Socrates was notable for the following:

Ethic of Knowledge:

Connecting Education and Happiness (From Epistemology to Ethics). This was a mindset that influenced all subsequent Greek philosophers. According to Socrates, truthfulness is already predicated on the ethical virtue of truth. This was a step forward from pre-Socratic thinkers. Socrates' central thesis was that humans do not act evilly on purpose. We act in accordance with our convictions. Inappropriate behaviour is the result of ignorance. Reduce ignorance and help to improve society. As a result, he believed that knowledge, or insight, was the bedrock of virtue and happiness. He demonstrated his unwavering commitment to truth through his use of critical reasoning. Commitment to truth is the most important virtue that humans can possess. Finally, this virtue tends us toward happiness. Later insistence on morality as a path to happiness is founded on Socratic thought.

Merit and Demerit:

In comparison to this point of comparison, the Socratic ethic of knowledge has both merits and shortcomings. The advantage is that it is free of potential misunderstandings regarding tradition and theology. The disadvantage is that it lacks theoretical underpinnings, save for the acceptance of dialogue as an effective method of eliciting knowledge from students.

Paradoxes: Numerous beliefs ascribed to the historical Socrates have been described as "paradoxical" because they appear to contradict common sense. Among the so-called Socratic Paradoxes are the following: (1) Nobody wishes for evil. (2) No one makes errors or commits wrongs voluntarily or knowingly. (3) Virtue is synonymous with knowledge, and

all virtue is synonymous with knowledge. (4) Virtue alone is sufficient to bring about happiness.

Development of the Inductive Method of Argument in Philosophy:

This is still the method of scientific reasoning today. In Socrates, the Western world sees the birth of an epistemology of empirically based reasoning. He was a zealous practitioner of this method, which aided Plato and Aristotle in further developing it based on his example.

The Dialectical (Elenchos) Method :

Interrogation Techniques Socrates founded the method of dialogue as a method of thinking through his free-wheeling interrogation and discussion with the aristocratic young citizens of Athens, insistently challenging their unwarranted faith in the truth of popular opinions. It is interrogation (elenchos) with the intention of refuting. The precise methodology used in dialogues is induction. Dia means "between" in Greek, while legein means "to gather, read, speak, etc." Thus, the dialectical method is a method of knowing that is intersubjective in nature. Plato adapted this method to serve as the universal method for philosophical education and debate in his Academy. Following him, Aristotle refined this methodology into "walking dialogues" and discovered it to be the most effective method for arriving at the premises of any deductive argument.

SOCRATES' PHILOSOPHY

Philosophical Anthropology:

Philosophy's appropriate subject of study is Man. Socrates was not particularly concerned with metaphysical issues. He believed that philosophy should produce practical results in the form of increased well-being for both the individual and the collective.

Knowledge, Self-knowledge and Wisdom:

According to Socrates, the highest human good is happiness. Whatever course of action a man takes is motivated by his desire to be happy. Knowledge, virtue, and wisdom are synonymous, because man chooses his actions based on what he believes will bring him the most happiness. Thus, the more knowledge a man possesses, the better equipped he is to reason out the correct course of action and to choose those actions that truly bring him happiness. That individual who truly knows himself possesses the highest knowledge. This knowledge is the epitome of wisdom. It enables man to act virtuously at all times, because he is aware of what will truly bring him happiness.

Political Philosophy:

Socrates was opposed to both tyranny and democracy. He believed that the best form of government was one in which the supreme ability, knowledge, and virtue were exercised by an individual.

THE EDUCATIONAL PHILOSOPHY OF SOCRATES

Socrates has tremendously influenced the education of the whole Western culture. The contributions of Socrates to education are as follows:

1. Qualities of the Socratic Teaching Method

The Socratic Method offers the following advantages to teaching act:

a. Problem-centered: The dialectic begins with a problem which must be analyzed, e.g. "What is your opinion about the nature of justice?"

b. Based on Student Experience: The student or dialogue participant responds on the basis of his own knowledge and experience.

c. Based on Critical Thinking: The student is held responsible for his statements. The teacher analyses some of the possible consequences of the student's remarks. The emphasis is upon the thinking processes of the student, who must think for himself and accept the consequences of his logic.

d. Teaching as a Drawing forth rather than a Telling: In the Socratic method the teacher does not tell the student the proper answer. He draws from the student's probable answer. Socrates brings in the following analogy. Knowledge / wisdom is the end result and aim of dialogue. It is the child. The nurse (Greek, maia) has a special function at the birth of a child. She helps the mother to bring the child out in a healthy manner. She pulls out the child. The student is the mother of the knowledge. The teacher acts as a maia. Hence the Socratic dialogical method of deriving knowledge is called the Maieutic Method. Thus Socrates, for the first time, gave great importance to the student and almost cast the teacher away from the central stage of knowing. A consequence of this is the following. If a teacher remains a student all through one's life, the teacher has some importance in the process of attainment of knowledge / wisdom.

e. Learning Treated as Discovery: The student learns when he discovers the true generalization through his reasoning processes. Socrates believed that (1) destroying the illusion that we already comprehend the world perfectly and (2) honestly accepting the fact of our own ignorance, vital steps toward our acquisition of genuine knowledge, by discovering universal definitions of the key concepts governing human life. Thus, discovery never ends.

The Purpose of Education :

The aims of education as derived from Socratic thought are:

a. Self-knowledge: The educated man is wise when he knows himself.

b. Individual Moral Good: The acquisition of knowledge is valuable for man because it makes him virtuous and happy. Socrates repudiated any ornamental theory of knowledge. In similar fashion Socrates deplores also the use of knowledge merely for material success in life. Knowledge is ethically and morally important for all men. Only someone who has been earnest to achieve truth through continuous inquiry and dialogue is virtuous.

c. Skill in Thinking: Each man must develop his skill in critically appraising propositions through the reasoning process.

ARISTOTLE

Aristotle was a Greek philosopher and scientist, better known as the teacher of Alexander the Great. Aristotle is well known scientist and philosopher. Aristotle was one of the great polymaths of his time. He studied under Plato and therefore learnt much about the great philosophic traditions of Socrates. But, Aristotle was more than just a good student; he had an independent mind and was able to question many different things and sought to resolve difficult questions and previously unsolvable problems.

Aim of Education

His perspective on education differed from that of Socrates and Plato. He was a believer in the value of education. According to Socrates and Plato, 'education's purpose is to 'acquire knowledge.' To them, acquiring knowledge was necessary for the individual's and society's welfare, and thus was a virtue in and of itself. Aristotle takes a contrary position. To him, education was not only about acquiring knowledge but also about acquiring happiness or goodness in life. He held the belief that virtue is defined by the pursuit of happiness or goodness. He classified 'goodness' into two categories: intellectual goodness and moral goodness. The former can be developed and enhanced through teaching, while the latter is the result of training and experience. The latter is a result of habit, and it can be achieved through the development of positive habits.

Aristotle Scheme of Education

Aristotle's educational philosophy is quite similar to that of his teacher, Plato, in his "Republic": he believes that parents should be responsible for their children's early childhood education. Following this, further education is the state's responsibility, but this does not absolve parents of responsibility for their children. They remain accountable for their moral education.

Aristotle curriculum

Like Plato, he also stresses on 'gymnastic'. But to him the purpose for getting the training of gymnastics was not only to produce perfection in athletics but also to develop the spirit of sportsmanship and above all to develop good habits for the control of passions and appetites. He considers music and literature useful for the' moral and intellectual development at an early stage of education. He recommends the teaching of 'mathematics' for higher education because it develops the power of deductive reasoning in man. The teaching of physics and astronomy is also necessary at this stage.

Aristotle Method of Teaching

Aristotle suggested inductive and deductive methods of **teaching**. He was the first to formulate the logic of these procedures. Aristotle applied these methods both for the objective and subjective studies: It is in this respect that he is considered as the father of modern sciences.

The Educational Theory of Aristotle

Aristotelian scheme of education is quite similar to that prescribed by his teacher, Plato, in his "Republic": He also believes that the education of the early childhood period should be the responsibility of the parents. After this, further education is the responsibility of the state, but it does not mean that parents are free from the responsibility of their children. They are still responsibility for their moral education.

Education should be guided by legislation to make it correspond with the results of psychological analysis, and follow the gradual development of the bodily and mental faculties. Children should during their earliest years be carefully protected from all injurious associations, and be introduced to such amusements as will prepare them for the serious duties of life. Their literary education should begin in their seventh year, and continue to their twenty-first year. This period is divided into two courses of training, one from age seven to puberty, and the other from puberty to age twenty-one. Such education should not be left to private enterprise, but should be undertaken by the state.

Aristotle on Teaching examines teaching in general, and analyses the objects, procedures, and order found in all student learning, furnishing the guidelines for the culminating section on the inductive and deductive procedures underlying all teaching. Aristotle believed that education was central – the fulfilled person was an educated person. His work is a testament to the belief that our thinking and practice as educators must be infused with a clear philosophy of life. There has to be a deep concern for the ethical and

political. We should act to work for that which is good or 'right', rather than that which is merely 'correct'.

Aristotle placed a strong emphasis on all round and 'balanced' development. Play, physical training, music, debate, and the study of science and philosophy were to all have their place in the forming of body, mind and soul. Like Plato before him, he saw such learning happening through life – although with different emphases at different ages. Aristotle looked to both education through reason and education through habit. By the latter he meant learning by doing – 'Anything that we have to learn to do we learn by the actual doing of it... We become just by doing just acts, temperate by doing temperate ones, brave by doing brave ones.' Such learning is complemented by reason – and this involves teaching 'the causes of things'. We can see here a connection with more recent theorists that have emphasized experience, reflection and connecting to theories. Aristotle bequeathed to us the long-standing categorizing of disciplines into the theoretical, practical and technical.

Aristotle Goals of Education

Education, as defined by Aristotle and his teachers, is "the formation of a sound mind in a sound body." Thus, for him, the purpose of education was to promote the welfare of individuals in order to bring them happiness. His perspective on education differed from that of Socrates and Plato. He was a believer in the value of education. According to Socrates and Plato, 'education's purpose is to 'acquire knowledge.' To them, acquiring knowledge was necessary for the individual's and society's welfare, and thus was a virtue in and of itself. Aristotle takes a contrary position. To him, education was not only about acquiring knowledge but also about acquiring happiness or goodness in life. He held the belief that virtue is defined by the pursuit of happiness or goodness. He classified 'goodness' into two categories: intellectual goodness and moral goodness. The former can be developed and enhanced through teaching, while the latter is the result of training and experience. The latter is a result of habit, and it can be achieved through the development of positive habits.

Aristotle believed the chain of thought, which ends in recollection of certain "imprints", was connected systematically in three sorts of relationships: similarity, contrast, and contiguity. Aristotle believed that past experiences are hidden within our mind. A force operates to awaken the hidden material to bring up the actual experience. According to Aristotle, association is the power innate in a mental state, which operates upon the unexpressed remains of former experiences, allowing them to rise and be recalled.

BERTRAND RUSSELL

Introduction

Bertrand Russell was a philosopher, logician, and social reformer from the United Kingdom. Russell's contributions to logic, epistemology, and mathematics philosophy established him as one of the twentieth century's preeminent philosophers.

Aims of Education in Russell's Thought:

Education's objectives are not fixed and unchanging. Education objectives vary by country or community, as they are determined by the country's or community's objective conditions. Russell defined education as a process of self-development. However, self-development can occur only within and through society. Each person has a social self. Russell argued for the importance of education in fostering responsible and creative citizenship. Russell has also attempted to strike a happy balance between individualism and socialism in this passage. Individual development is not possible without social progress and vice versa. "The cultivation of the individual mind is not, on face of it, the same thing as the production of a useful citizen," said Russell. "The individual should mirror the world." **"The most vital need of the near future will be the cultivation of a vivid sense of citizenship of the world",** said Russell. According to him education is not end in itself. It is a means to an end.

Character formation envisages power functioning of four essential elements or qualities:

(a) Vitality,

(b) Courage,

c) Sensitiveness and

(d) Intelligence.

(a) Vitality:

Vitality depends to a great extent on sound health. Hence one' of the aims of education is to form good health. Sound mind is only possible in sound health. Russell here reflects the Greek ideal — mens sana in corpore sano — a healthy mind in a healthy body.

(b) Courage:

Courage is another quality of character. Courage is nothing but absence of fear. Many people suffer from fear — both consciously and unconsciously — and without any reasonable ground. Through education fear should be removed from the mind of the children.

(c) Sensitiveness:

Sensitivity is the third component of character development. When our nearest and dearest suffers, we suffer alongside them. However, there are times when we empathise with the plight of individuals who are not dear to us and are not present in front of us. According

to Russell, this type of abstract sensitivity has the potential to resolve a great deal of the modern world's existing evils. "Education that fosters sensitivity to abstract stimuli would eliminate a significant portion of the evils that exist in the modern world today," Russell stated. Thus, one of education's goals is to instil in students an abstract sensibility.

(d) Intelligence:

The fourth element of character formation is intelligence. In the opinion of Russell intelligence means acquired knowledge and ability to acquire knowledge. But actually it means the latter. Without knowledge intelligence cannot be developed, said Russell. Opportunities should be provided so that the students can think.

Curriculum in School:

Russell recommended a general and compulsory curriculum for children up to the age of fourteen years. At this stage the curriculum should include ancient literature, modern language, mathematics, science, geography, music and dance. Russell has prescribed two types of curriculum for children between the age-group 15-18.

Methods of Teaching:

Bertrand Russell's famous educational treatise "On Education" places a premium on teaching methods. He advocated for psychological methods of instruction. "I place a high premium on recent psychological discoveries that indicate that early education shapes character to a much greater extent than even the most zealous educationists of previous generations believed."

Teacher:

Russell asserts that teachers are the true stewards of civilisation. A teacher does not have to be gifted. However, he must possess contemporary and up-to-date knowledge, as well as expertise in instructional methods. He should be compassionate, affectionate, and patient with his students.

Discipline and Freedom:

Russell believes that allowing children to exercise their freedom is psychologically beneficial and beneficial to their natural growth and development. "When children are subjected to severe discipline, mental stress and disorder can result." Additionally, compulsion has the effect of suffocating creativity and intellectual interest in education. Children's fear of punishment can occasionally breed an aversion to learning. Russell is an advocate for self-regulation and self-discipline through play. Russell lauded Montessori's child discipline system.

Russell asserts that liberty does not imply authorization or unrestricted liberty. He is opposed to both unrestricted liberty and severe punishment. He attempted to achieve a synthesis (balance) between the two. "The proper discipline," he stated, "does not consist in external rules but in mental habits that naturally lead to beneficial rather than detrimental activities." Internal liberty is true liberty. "The most desirable type of discipline is self-imposed," he continued.

PAULO FREIRE

Introduction

Paulo Reglus Neves Freire (1921–1997), a Brazilian educator and philosopher, was one of the twentieth century's most well-known and influential radical education theorists. His work influenced progressive educators worldwide, particularly in the context of emerging traditions of critical pedagogy, issue-based learning, and social constructivism. He had an incalculable impact on peace education, adult education, non-formal education, and critical literacy. He is widely regarded as the founder of education's critical pedagogy perspective.

Paulo Freire is neither an idealist nor a realist; he is neither a mechanist nor a realist. Freire refutes the view that man is abstract, isolated, self-sufficient, and unconnected to the rest of the world. Additionally, he denies that the world exists as a separate reality from men. In his view, consciousness and the world exist concurrently. Because consciousness does not precede the world, as idealists believe, nor does it follow the world, as materialists believe, Paulo's position is similar to that of existentialists, who place a high premium on the existence of an existential man endowed with strong will power capable of transforming the world through his own efforts.

Freire's Educational Views

Friere offers in his book Pedagogy of the Oppressed a detailed analysis of the short comings of the prescriptive style of teaching. In prescriptive teaching teacher assumes an authoritarian role. Freire refers this as the banking system.In the banking system of education the man's transaction is the act of transferring information from teachers head and depositing in students heads. Here the students are the depositories and the teacher the depositor. In opposition to this domesticating system, Friere suggests a problem posing education which will break the vertical pattern characteristics of the traditional teacher student relations by establishing a horizontal dialogue. According to Friere "No one can teach any one else: no one earns alone: people learn together, acting in and on their world"

a) Aims of Education

According to Friere, the function of education is to humanize Individuals through conscious action for the purposes of transforming the world. In such a process education cannot be neutral. It can either be an Educative processes domesticate instrument of domination or liberation people where there exists a dominant culture of silence. In this culture people are taught to accept what is handed down to them by the ruling elite Without questioning. Hence, their understanding of their social reality is limited to what they are taught and told to accept and believe. The following are the important constructs of Frier's educational views:

- Education is a cultural tool for oppressed people's liberation. It must equip students with the tools necessary to create their own reality.
- Education is, by definition, a political act. It cannot be apolitical. It can either be a tool of oppression or of liberation.
- Education is a state of communion (the exchange of thoughts and feelings) between participants in a dialogue characterised by reflexive, reciprocal, and socially relevant exchanges, rather than the unilateral action of one individual agent for the benefit of another.
- Knowledge is not a fixed commodity that teachers pass on to students. Learners must construct knowledge from previously acquired knowledge.
- Action precedes learning. It is a process in which learners are presented with knowledge and then shape it through comprehension, discussion, and reflection.
- Students should not be viewed as an empty account that the teacher must fill in (banking system of education). Teachers must understand that students' life experiences and prior knowledge play a significant role in shaping their education and learning.
- Education is a phenomenon in which educators and students educate one another.
- Education is the process of developing a critical understanding of reality. Reading the word is inextricably linked to reading the world. Education should instil a sense of self-awareness in students, transforming them into subjects rather than objects of the world.
- Education must begin with a person's situation and reality. Their life situation is manipulated to create a problem.
- Educational practise is a form of communication, not an extension.

While communication entails two parties conversing, extension entails the transfer of knowledge.

Freire's Contributions to Education

Freire's ideas are particularly pertinent to educators and teachers in developing countries. This is especially true for adult, non-formal, and extension education programmes, though the values of his philosophy and techniques can also be applied to education of younger age groups.

Paulo Freire is widely regarded as one of the most influential voices in contemporary education theory and practise. His revolutionary pedagogical theory has influenced educational and social movements worldwide, and his philosophical writings have had an impact on academic disciplines such as theology, sociology, anthropology, applied linguistics, pedagogy, and cultural studies.

The following are his specific contributions:

- Freire viewed education as a profoundly political project aimed at transforming society. This strategy was instrumental in educating numerous revolutionary societies in Latin America and Africa (Brazil, Chile, Caribbean region, Botswana, Guinea, Bissu, Nicaragua, Tanzania etc..)
- His work has had a significant impact on progressive educators worldwide, particularly in the context of emerging critical pedagogical traditions, issue-based learning, and social constructivism. He had an incalculable impact on peace education, adult education, non-formal education, and critical literacy. He is widely regarded as the founder of education's critical pedagogy perspective.
- His pedagogy is founded on a profound affection for and humility toward poor and oppressed people, as well as a respect for their common sense. This humility and respect enabled the teacher and learner to share the same platform for the generation and dissemination of knowledge for the benefit of society.
- Freire defined education as a communion (the exchange of thoughts and feelings) between participants in a dialogue marked by reflexive, reciprocal, and socially relevant exchanges, rather than the unilateral action of the individual agent for the benefit of the other.
- Freire's podagogy enabled intellectuals to contribute meaningfully to the struggle for social change of the most marginalised people.
- Freire provided students and teachers with the conceptual framework for critically interrogating them in order to minimise their domesticating influences.
- His revolutionary pedagogy inspired millions of students and teachers worldwide to unlearn their race, class, and gender privileges and to engage in dialogue with one

another in order to develop a critical awareness of the social realities in which they live.

- His critical pedagogy liberated individuals from the suffocating yoke of banking education.
- Freire's dialogical problem-posing method of education serves as the foundation for contemporary problem-based learning, which invites the oppressed (learner) to examine their social reality as a transformable problem.
- Freire's pedagogy was considered compatible with the global anti-capitalist and anti-imperialist movements. As a result, it has fueled movements aimed at establishing a more just and egalitarian society.
- His emphasis on dialogue and his discussions of egalitarian teacher-student relationships lay the groundwork for a pedagogy of peace education.
- Freire advocated for dialogue and a horizontal relationship between teachers and students, and he emphasised the importance of active learning.
- Liberating education, as Friere defines it, is a process of humanising oppressed people. It enables oppressed people to critically examine their social standing.

Conclusion

Over the course of several years of active involvement, Paulo Freire developed and tested an educational system as well as a philosophy of education. His educational focus is on the human capacity for creativity and liberty in the face of oppressive political, economic, and cultural structures. Paulo Freire was frequently referred to as a humanistic, militant educator who believed that educational solutions are always found in concrete contexts. Students should be questioned about their educational goals. Collaboration, unification, and cultural synthesis are required. The educator should avoid manipulating students but also avoid abandoning them to their fate. He should be the one who directs tasks and studies, not the one who orders students. He believed that an educator who liberates students invites them to think. This enables students to create and remake their worlds and develop into more human beings. Freire believed that communication should be simple, regardless of the complexity of the information. Simplifying enables students to gain a greater level of accessibility. Perhaps no one has made the world more aware of education's subversive potential than Paulo Freire. He transformed the classroom into a place of empowerment for the impoverished and oppressed.

DAVID KOLB

Introduction

Kolb is a psychologist and educational theorist based in the United States. Perhaps the most well-known aspect of his research is his work on experiential learning and learning styles. Experiential learning, according to Kolb, is a process by which knowledge is gained through various combinations of grasping and transforming experiences. We can comprehend experience in two ways: through direct experience or through abstract conceptualization.

Kolb's Experiential Learning Theory & Learning Styles

Humanistic and constructivist educational approaches, which emphasise the natural process of learning, include David Kolb's Theory of Experiential Learning. Kolb argued that experience was necessary for the development of knowledge construction, as learning occurs through discovery and active participation. Kolb defined learning as "the process whereby knowledge is created through the transformation of experience".

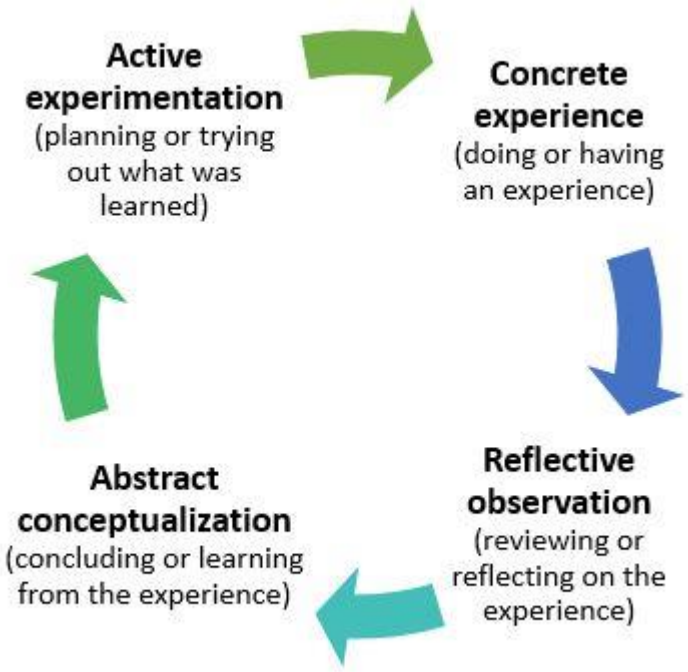
Two parts of Kolb's Experiential Learning Theory:

There are two parts to Kolb's Experiential Learning Theory.

The first is that learning occurs in a four-stage cycle, which is described below. Kolb believed that, in an ideal world, learners would progress through the stages of a cycle, thereby transforming their experiences into knowledge. The second section of Kolb's Theory examined learning styles, or the cognitive processes involved in acquiring knowledge. Kolb believed that individuals could demonstrate their knowledge, or the process of learning, when they were able to apply abstract concepts to novel situations.

Kolb's Four Stages of Learning:

Kolb's Learning Cycle is based on the Jean Piaget's focus on the fact that learners create knowledge through interactions with the environment.



1. Concrete Experience:

Kolb's cycle of learning begins with a concrete experience. This can be a completely new experience or a reimagined version of an existing one. Each learner participates in an activity or task during a concrete experience. Kolb believed that involvement was necessary for learning. It is insufficient for students to simply read about it or watch it in action. To acquire new knowledge, students must participate actively in the task.

2. Reflective Observation:

Following the concrete experience, the learner takes a step back to reflect on the task at hand. This stage of the learning cycle enables the learner to ask questions and collaborate with others on the experience. Communication is critical at this stage because it enables the learner to identify discrepancies between their understanding and the actual experience. Additionally, a strong vocabulary enables a thorough review of the events that occurred.

3. Abstract Conceptualization:

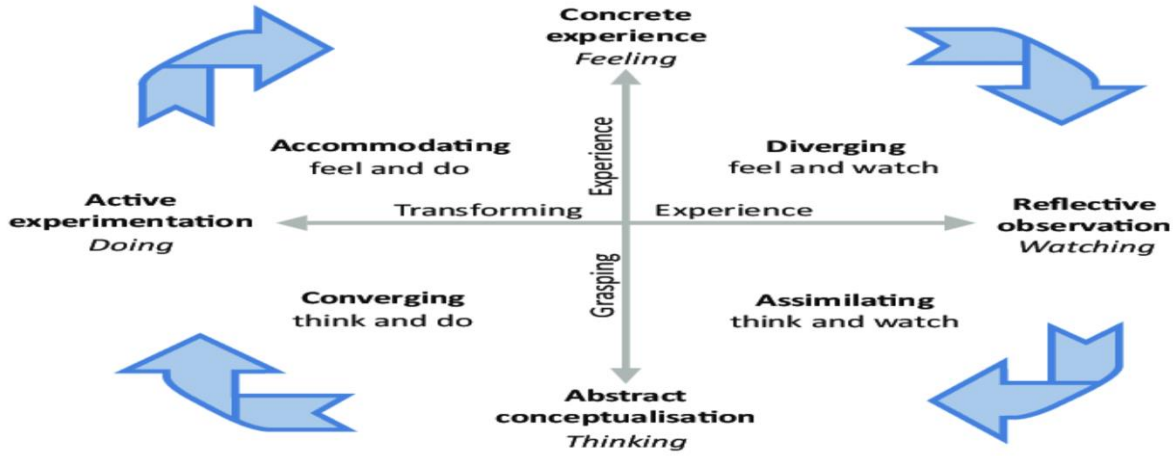
The following stage of the learning cycle is to make sense of these occurrences. The learner attempts to draw conclusions about the experience by reflecting on prior knowledge, applying familiar concepts, or conversing with peers about possible theories. When the learner begins to classify concepts and draw conclusions about the events that occurred, they transition from reflective observation to abstract conceptualization. This process entails interpreting the experience and drawing comparisons to their current grasp of the concept.

Concepts do not have to be "new"; learners can analyse new information and revise their conclusions based on previously held beliefs.

4. Active Experimentation:

This is the testing stage of the cycle. The learners then engage in another task, this time with the objective of applying their conclusions to new experiences. They are able to make predictions, analyse tasks, and plan for the future application of acquired knowledge. By allowing students to apply their knowledge and demonstrate how it applies to their daily lives, you can ensure that the information is retained in the future.

Kolb's Learning Styles



1. Diverging (concrete experience/reflective observation)

This method of learning is unique and creative. Rather than examining concrete experiences through the lens of their actions, individuals tend to view them through a variety of lenses. They place a premium on emotions and take an interest in others. Individuals who prefer this method of learning frequently enjoy tasks such as brainstorming ideas and cooperating in groups.

There are a few instructional techniques that Divergers prefer:

- Hands-on activities and exploration Classic teacher-class lecture emphasising how to use a system as well as its strengths and weaknesses

2. Assimilating (abstract conceptualization/reflective observation)

This style of learning places a premium on reasoning. Individuals who exhibit this style of learning are capable of reviewing facts and evaluating the experience in its entirety. They frequently take pleasure in designing experiments and completing projects from start to finish.

- Assimilators prefer the following instructional techniques:

- Exercises that the learner can complete independently of the instructor
- The traditional teacher-class lecture, accompanied by an audio or video presentation.
- Private investigation or demonstration that follows a tutorial and includes answers.

3. Converging (abstract conceptualization/active experimentation)

This style of learning emphasises problem solving as a method of learning. Individuals who prefer this method of learning are capable of making decisions and applying their concepts to new situations. In comparison to Divergers, they tend to avoid people and perceptions in favour of technical solutions.

There are a few instructional techniques that Convergers prefer:

- Workbooks or worksheets that provide problems sets
- Tasks that are computer-based
- Interactive activities.

4. Accommodating (concrete experience/active experimentation)

This method of learning is adaptable and intuitive. These individuals prefer to guide their experiences through trial and error, preferring to discover the answers for themselves. They are adaptable to changing circumstances and generally possess strong interpersonal skills.

- Accommodators prefer the following instructional techniques:
- Activities that allow them to participate actively
- Investigation and instructor support for more in-depth inquiry, such as "what if?" or "why not?"
- Activities that foster self-discovery.

Application

In general, teachers can identify students' learning styles by observing them in the classroom. Through presentations, discussions, and collaborative activities, students begin to demonstrate their preference for particular styles. When teaching online, it is critical for the instructor to engage students throughout the learning cycle in order to ascertain their preferences. As a general rule, effective teaching practises incorporate a variety of learning activities in order to accommodate students with a variety of learning styles. A variety of experiences benefits all learners, regardless of their preferred learning style, by assisting them in developing specific skills and resulting in a more flexible, well-rounded learner.

Kolb's theory of experiential learning encompasses the entire process of learning. All stages are possible to incorporate into the experiences. For instance, depending on how the learner interacts with a traditional teacher-student lecture, it can be both a concrete and abstract experience. This also implies that the learner may regard intense emotional reflection as a concrete experience, while completing a computer-based task as an abstract one. Additionally, a learner may create their own abstract model in order to gain a better understanding of a specific experience or task. It is critical not to confine learning experiences to the stage at which they appear to be.

UNIT IV

PEDAGOGY AS ENVISAGED BY CONSTRUCTIVIST THINKERS

Constructivism

Constructivism is centred on the idea that human knowledge and learning is actively constructed by the Learner, not passively received from the environment. "Constructivism is building on knowledge known by the student. Education is student centered; students have to construct knowledge themselves. Explanations can use meta cognition to explain via metaphor. Semiotics, or meanings of words, are important to keep in mind. Constructivism is a theory, a tool, a lens for examining educational practices."

Constructivism is theory in education that recognizes learners *construct* new understandings and knowledge, integrating with what they already know. This includes knowledge gained prior to entering school.[3] It is associated with various philosophical positions, particularly in epistemology as well as ontology, politics, and ethics.

The theory of constructivism has many elements. These principles outline the theory as a whole and how they affect the learning of the students. The main points are listed below:

***1.Knowledge is constructed*.** Every student begins the learning journey with some pre existing knowledge and then continues to build their understanding on top of that. They will select which pieces of the experience to add, making everyone's knowledge unique.

***2.Learning is a social activity*.** Interacting with others is vital to constructing knowledge. Group work, discussions, conversations, and interactions are all important to creating understanding. When we reflect on our past experiences, we can see how our relationship with others is directly connected to the information learned.

***3.Learning is an active process*.** Students must actively engage in discussions and activities in order to construct knowledge. It is not possible for students to take on a passive role and retain information. In order to build meaningful ideas, there must be a sensory response.

4***.Learning is contextual*.** Isolation is not the best way to retain information. We learn by forging connections between what we believe and the information we have already. Learning also occurs in the situation within the context of our lives, or alongside the rest of our understanding. We reflect on our lives and classify the new information as it fits into our current perspective.

***5.People learn to learn, as they learn*.** As each student moves through the learning journey, they get better at selecting and organizing information. They are able to better classify ideas and create more meaningful systems of thought. They also begin to recognize that they are learning multiple ideas simultaneously, for example, if they are writing an essay on historical events, they are also learning elements of written grammar. If they are learning about important dates, they are also learning how to chronologically organize important information.

***6. Learning exists in the mind*.** Hands-on activities and physical experience are not enough to retain knowledge. Active engagement and reflection are critical to the learning journey. In order to develop a thorough understanding, students must experience activities mentally as well.

***7. Knowledge is personal*.** Because every person's perspective is unique, so will be the knowledge gained. Every individual comes into the learning activity with their own experiences and will take away different things as well. The theory of constructivist learning is based entirely around each individual's own perspective and experiences.

8.Motivation is key to learning. Similar to active participation, motivation is key to making connections and creating understanding. Students cannot learn if they are unwilling to reflect on pre existing knowledge and activate their thought process. It is crucial that educators work to motivate their students to engage in the learning journey.

Constructivism in Education

It is not enough to simply know the theory of constructivist learning. Educators must also know how to implement it in their classrooms. Their goal is to create a welcoming environment that promotes active engagement in learning. In the theory of constructivist learning, instructors act as facilitators. They must promote collaboration and adjust their lessons based on the prior level of

understanding of the class. Once they identify students' existing knowledge, instructors must work to grow the understanding in those areas.

There are four key areas that are crucial to the success of a constructivist classroom:

- The instructor takes on the role of a facilitator instead of a director.
- There are equal authority and responsibility between the students and the instructor.
- Learning occurs in small groups.
- Knowledge is shared between both the students and the instructor.

These four areas must be addressed in order for the constructivist classroom to be successful. As you can see, it differs greatly from the traditional classroom. Constructivist classrooms are more student-centered and the learning revolves around their interests and questions. Teachers guide learning by implementing group activities, creating collaborative dialogue, and facilitating interactive experiences. Students build on their prior knowledge and construct new understanding based on the lessons taught. Dialogue and negotiation are also key components to successful learning.

John Dewey

In the early part of the 20th century, the innovations of progressive education made a strong protest against the conventional methods of teaching in schools. Progressive methods in teaching advocated that the interests of the learners and freedom in learning situations should form important bases of education. These progressive ideas were the result of 'Pragmatism' The root of pragmatic philosophy is the problem solving attitude. It is John Dewey who gave a classic formulation to the structure of the problem-solving method. The credit for introducing the inquiry approach in education really goes to John Dewey His thinking and writings brought drastic changes in the general education system of America, during the first half of the 20th Century.

Brief Life-Sketch of John Dewey

John Dewey was born in 1859 at Burlington, U.S.A. After graduating from the University of Vermont in 1879, he started his career as a school teacher. His philosophy is not simply speculative but based on the actual experiences in the school. Dewey's "Democracy and Education, "Education and Today". "The School and the Society, The School and the Child, "The School of Tomorrow", "Freedom and Culture" are some of the books which have come to be regarded as the classics of education. While Rousseau glorified the individual at the cost of society, John Dewey fused both psychological and sociological aspects of education. He passed away in 1950, after retiring from Columbia University as professor of philosophy for 30 years.

Dewey's Educational Philosophy

Conception of Education

Education is a social necessity, according to John Dewey. Defining education he says, "Education is the development of all those capacities in the individual which will enable him to control his environment and fulfil his responsibilities". Thus, to John Dewey, education is a bipolar process. It has two sides, the psychological and the sociological; neither of the two can be subordinated nor neglected. The psychological side is the study of the child, with all his inclinations, instincts, potentials and interests it forms the very basis of education. The sociological side is the social environment in which the child is born, lives and grows for society. On a further analysis of Dewey's educational theory, we find the following four fundamentals

1.Education as growth.

2. Education as life.

3 Education as social efficiency.

4.Education as reconstruction of experience.

1) **Education as growth:**

Growth is the real function of education. But growth is not directed towards a predetermined goal or end. The end of growth is more growth and so the end of education Is more education. Education is to promote critical thinking and with it the mind will grow to think further.

2) Education as life :

Dewey believes that education is not preparation for life. It is life itself. "Life is a by product of activities and education is born out of these activities". School is now taken as a miniature society which faces problems, similar to those faced in life outside. For education, pupils should be made active participants in the social community life of the school and thus trained in cooperative and mutually helpful living. They should be encouraged to face actual life problems in the school and gain varied experiences.

3) Education and social efficiency :

Man is a social animal who continuously draws energy, strength, knowledge, experience and attitudes in a social medium. He owes character and mind, habits and manners language and vocabulary, taste and aesthetic appreciation, to his interaction with the social consciousness of his community. When as an individual, he shares such rich resources of a good society, he should also be ready to give back to that society and thus help other members to develop. It is the function of education to teach him this give-and-take process and make him aware of his social obligations. Education must transform the immature child into a social human being.

Thus the aim of education is to promote social efficiency i.e. the ability to function as an effective member of his community by partaking in its activities and at the same time contributing to its refinement and advancement. This view of John Dewey is simply super more so in the context of developing countries like India.

The Issue of brain-drain' in Indian education is a sad reflection of its poor social efficiency. Similarly, the phenomena of white-collar crimes like corruption, adultery, hoarding, debasing the environment and defrauding the nation at the global level in general and India in particular, explains the total failure of the modern system of education to generate social efficiency among the educated.

4) Education is reconstruction of experiences:

According to John Dewey experience is the only source of true knowledge. One experience leads to further experience and each new experience calls for revision, modification or rejection of the previous experience. In this way, the old patterns yield place to a new pattern. Thus education is by experience, for experience and of experience. It is only through experience that knowledge increases and modification of behaviour takes place.

Aims of Education

John Dewey, being a pragmatist, believed that since physical and social environments are always changing, aims of education must also change. They cannot be fixed for all times to come. However, he put forth the following as the immediate aims of education.

- to develop an ability to understand and analyse the problems
- to develop skills for intelligent application of knowledge and insight into solving problems
- to arouse interest through planned experiences
- to help in the adjustment to changing needs and ideals of society.

Curriculum

Dewey's curriculum is not a mere scheme of studies, noris it a list of subjects. It is an entire range of activities and experiences, projects leading to reconstruction and reorganisation of experiences. Thus he makes occupational activities of crafts, the core of the school curriculum. He also includes moral, aesthetic and religious education in the curriculum. But these again are to be imparted through practical experiences and not through chalk and talk lessons in the class room.

Methods of Teaching

John Dewey considers that mind is a product of activity and develops through activity. There must be some stimulus to mind for thinking. It cannot think unless it is faced with some problem. As soon as it faces a problem, it starts thinking for its solution. This very process, Dewey applies to education. in his

ideal school, the child engages himself in various types of activities which are inspired by his own urges and inclinations. During the course of these activities, he faces certain problems which arise spontaneously out of his own life situations. The child then thinks of possible solutions and then tries to put his plans into action. In the actual execution of his plans, he comes to know of the correctness or otherwise, of his ideas. This procedure is called by him as "**Project Method**" which is also referred to by the name "**Experimental Method**" Thus the important steps involved in the project method are

a) Creation of a suitable situation that gives rise to real problem
b) Thinking of all possible solutions for that problem.
c) Collection of information about the problem from all possible sources
d) Execution an arriving at the possible solution.
e) Application or the solution, arrived at.

Discipline

Dewey conceptualised 'Social Discipline' which is not based on punishment and rewards or outer control. It is self-discipline, resulting from free purposeful and creative activities. The natural way of establishing such a discipline is to redirect the natural impulses of children, through cooperative or shared activities. Discipline is to be enforced through social acceptance or rejection. (Eg. An in disciplined child will not be allowed by his peers to participate in games or projects).

Role of the Teacher

The teacher is not an authority to direct the teaching-learning process, he is the provider of settings, conducive to learning. He is not an authority in dispensing ideas to be absorbed by his pupils, but a guide, stimulus and catalyst in getting the child to make his own relations and connections, his own ideas. In doing this, the modern teacher must take into consideration a great variety of factors that the traditional teacher considered extraneous the total physical setting, since this, rather than merely the subject alone makes up the environment for learning: the psychology of the individual pupils, so that differences in motivation, intelligence and orientation can be taken into account, the social psychology of the group,

since general interests, needs and purposes will serve as the basis for developing the curriculum; the psychological principles earning, memory, transfer, and motivation, so that learning Can be made efficient and economical.

Contributions of John Dewey to Educational Practices

Dewey s social theory of education coupled with the logic of experimental method has been very influential in the development of modern educational practices. The chief contributions of John Dewey to education are

i) He fused both psychological and sociological aspects of education.
ii) Advocated "Project Method" of learning.
iii) Insistence on activities of diverse kinds in schools' activity centred curriculum.
iv). Conceptualised social discipline i.e. self-discipline through participation in group activities.
v) Considered teacher as a guide, friend and director of activities.
vi) Advocated 'social efficiency' as the main aim of education.
vii). Advocated training for democratic living through school activities and practices.

Immanuel Kant

Introduction

Immanuel Kant was a German philosopher of the late 18th Century (17 24 – 1804). He was a Professor of philosophy at the University of Konigsberg in Prussia. He was a contemporary of Rousseau, Hume and Adam Smith. Kant believed that political-legal order could be just, only if it pays homage to morality.

Kant's view on education

Education is the greatest issue in human societies, in a way that developed countries owe their growth and elevation having dynamic education and also undeveloped countries deferred because of their poor education institutional world. One of them is education and the other one is government. He explains that in fact government is the most fundamental task all over the world. He suggested some principles for these two subjects that if they work, it will be achievable.

The emphasis on subjectivity is a fundamental principle of education in the modern world. Applying that principle, the actors involved in the process of education and upbringing are defined as subjects who must not make use of one another as 'instruments.' The fact that all men are subjects who should not exploit each other as means to an end would seem to be the quintessence of Kant's philosophy. For that, modern European education owes him a debt of gratitude in the general world context. If we go on to apply Kant's philosophy to education and inquire into its educational significance, we shall, however, not have to deal solely with the educational statements that are immanent in Kant's philosophy. We shall also need to make reference to his explicit educational statements.

Kant's thoughts concerning education are related closely with person nature. He thinks that there isn't wickedness at the person nature. At a person there are only goodness seeds and this goodness can improve with education. For him, the entire kindness source at the World is education. Whole talents and seeds always have to improve in a good way that at a person has potential. There is no badness at a person's nature. The only reason of badness is not taking under control and not giving a direction with the nature's good education principles. At this time it needs to do provide being at the person potential goodness by means of education. Because Kant thinks that person susceptible to goodness from innate and improves this, it needs top up some of the rules.

The reason of giving a big importance to education of Kant, the most important reason causing badness is not directing according to a good education of a person nature and thinking of sending a person in a good way with the education. To him, a person only can be a person with education. By means of education Kant believes person could carry out own self and attracts attention gaining the most addition to perfection of person nature for education.

According to Kant person should submit the **discipline**. Taking under discipline of a person, weather at individual or national life it means that obstructing bestial peculiarities at person comes out on top to human peculiarity. Because discipline hinders person if he doesn't obey the rules. At the same time education should provide a person cultural things. Culture includes education and instruction and also express person's talent. Talent is a force to reach different goals to product needy information and materials and could use them and it is not an aim of own self. Education also should gain a person to distinguish talent and understanding. That way person can manage own self in a nation, be loved own self, and can win influence and population

Kant's moral philosophy

Kant's moral philosophy thoughts, he comes to a conclusion that person's nature neither good nor bad. When person improves only moral law and task conscious and has a mind, he becomes an moral existence. According to Kant, to be a good from the point of view moral it is only possible with virtue. Virtue is not submit to natural tendency as possible as, and only try to be in action obeying the free moral law. In another way according to Kant, becoming ripe with moral view, it's not to natural tendency, it means trying to be in an action for the moral law. Consequently an ideal education gives a chance to raise appropriate style as a will's

natural tendency, obstructing material desires and instead of volitions mind principles that's to say moral law.

Kant separates education in two as moral and physical education. For him, physical education is only common way with feed and care comparing human with animals. Physical and moral education teaches us how a person lives as independent existence. Instruction makes a person worthy as an individual. By means of instruction getting information helps to develop person's talent. Moral education makes a citizen value for a state and a nation. Moral education makes a person value as a person existence. Consequently person thanks to education get used to live in harmony with nation.

conclusion

The basic aim of education to Kant has to be provide fulfilling person own self being committed to moral law. Person should effort being an autonomous individual acting to moral law. That's why Kant defends that person should needs to get used to discipline and task in an appropriate time. An moral action is only being a good and virtuous when moral action being in an appropriate style to moral law. The important thing is making goodness is that being a goodness, not making badness is that being badness. When a person gains an moral education based on understanding, comprehension and expressing, person can carry out coincidence and moral actions and he counts to be educated in a real mean.

Piaget's Theory of Constructivism

Introduction

Jean Piaget was a philosopher from Switzerland. He was also a natural scientist that was famous for the work that he did studying cognitive development and learning theories encompassed in his view of "genetic epistemology". At the young age of eleven he attended high school at Switzerland Latin wherein one of his short pieces was the start of his scientific career.

Piaget's Theory of Constructivism

Piaget's theory of constructivism impacts learning curriculum because teachers have to make a curriculum plan which enhances their students' logical and conceptual growth. Teacher must put emphasis on the significant role that experiences-or connections with the adjoining atmosphere-play in student education. For example, teachers must bear in mind the role those fundamental

concepts, such as the permanence of objects, plays when it comes to establishing cognitive structures.

Piaget's theory of constructivism argues that people produce knowledge and form meaning based upon their experiences. Piaget's theory covered learning theories, teaching methods, and education reform.

key components of knowledge construction

Two of the key components which create the construction of an individual's new knowledge are

- Accommodation
- Assimilation.

Assimilating causes an individual to incorporate new experiences into the old experiences. This causes the individual to develop new outlooks, rethink what were once misunderstandings, and evaluate what is important, ultimately altering their perceptions.

Accommodation, on the other hand, is reframing the world and new experiences into the mental capacity already present. Individuals conceive a particular fashion in which the world operates. When things do not operate within that context, they must accommodate and reframing the expectations with the outcomes.

Piaget's theory of constructivism addresses how learning actually occurs, not focusing on what influences learning. The role of teachers is very important. Instead of giving a lecture the teachers in this theory function as facilitators whose role is to aid the student when it comes to their own understanding. This takes away focus from the teacher and lecture and puts it upon the student and their learning. The resources and lesson plans that must be initiated for this learning theory take a very different approach toward traditional learning as well. Instead of telling, the teacher must begin asking. Instead of answering questions that only align with their curriculum, the facilitator in this case must make it so that the student comes to the conclusions on their own instead of being told. Also, teachers are continually in conversation with the students, creating the learning experience that is open to new directions depending upon the needs of the student as the learning progresses. Teachers following Piaget's theory of constructivism

must challenge the student by making them effective critical thinkers and not being merely a "teacher" but also a mentor, a consultant, and a coach.

Impact on education

Some strategies for teacher include having students working together and aiding to answer one another's questions. Another strategy includes designating one student as the "expert" on a subject and having them teach the class. Finally, allowing students to work in groups or pairs and research controversial topics which they must then present to the class.

Social Constructivism: Vygotsky's Theory

Introduction

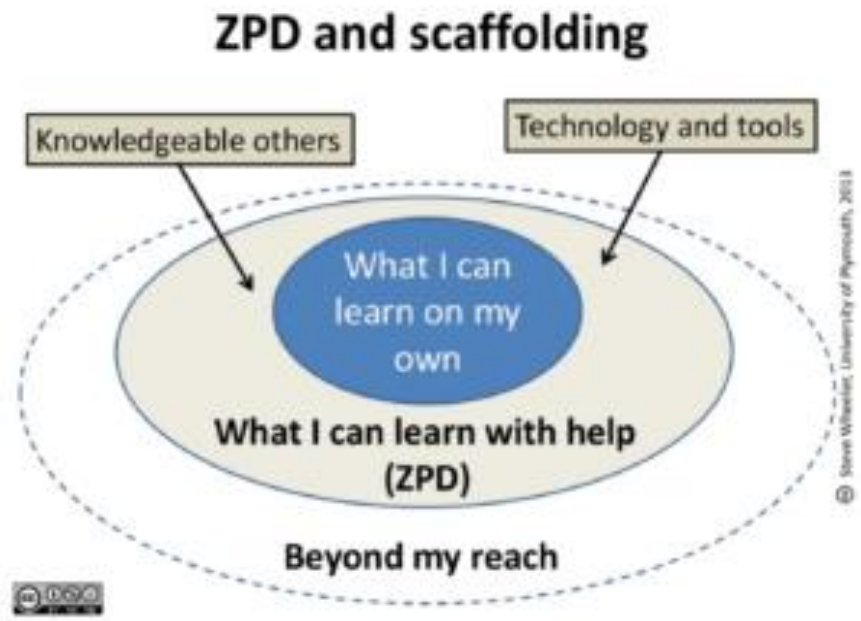
Lev Vygotsky (1896-1934) was a Russian psychologist whose **sociocultural theory** *emphasizes the importance of culture and interaction in the development of cognitive abilities*. Vygotsky differed with Piaget in that he believed that a person has not only a set of abilities but also aset of potential abilities that can be realized if given the proper guidance from others. Vygotsky developed theories on teaching that have been adopted by educators today.

Like Piaget, Vygotsky acknowledged intrinsic development, but he argued that it is the language, writings, and concepts arising from the culture that elicit the highest level of cognitive thinking . He believed that social interactions with teachers and more learned peers could facilitate a learner's potential for learning. Without this interpersonal instruction, he believed learner's minds would not advance very far as their knowledge would be based only on their own discoveries.

Zone of Proximal Development and Scaffolding

Vygotsky's best-known concept is the **Zone of Proximal Development (ZPD). The** ZPD has been defined as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem-solving under adult guidance, or in collaboration with more capable peers". Vygotsky stated that learners should be taught in the ZPD. A good teacher or more-knowledgeable-

other (MKO) identifies a learner's ZPD and helps them stretch beyond it. Then the MKO gradually withdraws support until the learner can perform the task unaided. Other psychologists have applied the metaphor of scaffolds (the temporary platforms on which construction workers stand) to Vygotsky's theory. Scaffolding is the temporary support that a MKO gives a learner to do a task.



Thought and Speech

Do you ever talk to yourself? Why? Chances are, this occurs when you are struggling with a problem, trying to remember something, or feel very emotional about a situation. Children talk to themselves too. Piaget interpreted this as **egocentric speech** or a practice engaged in because of a child's inability to see things from another's point of view. Vygotsky, however, believed that children talk to themselves in order to solve problems or clarify thoughts. As children learn to think in words, they do so aloud, referred to as **private speech**, speech meant only for one's self. Eventually, thinking out loud becomes thought accompanied by internal speech, and talking to oneself becomes a practice only engaged in when we are trying to learn something or remember something. This inner speech is not as elaborate as the speech we use when communicating with others.

Implications for Education

Vygotsky's theories have been extremely influential for education. Although Vygotsky himself never mentioned the term scaffolding, it is often credited to him as a continuation of his ideas pertaining to the way adults or other children can use guidance in order for a child to work within their ZPD.

Educators often apply these concepts by assigning tasks that students cannot do on their own, but which they can do with assistance; they should provide just enough assistance so that students learn to complete the tasks independently and then provide an environment that enables students to do harder tasks than would otherwise be possible. Teachers can also allow students with more knowledge to assist students who need more guidance. Especially in the context of collaborative learning, group members who have higher levels of understanding can help the less advanced members learn within their zone of proximal development.

Jerome Bruner's Constructivist Theory

Introduction

Jerome Bruner was one of the most influential constructivists. He was influenced by Piaget's ideas about cognitive development in children. His ideas have been widely discussed among educators and teachers. Some of Bruner's theoretical principles focus on these ideas:

- Nature of Learning and learning process.
- Instructional scaffolding
- The intellectual development of the learner

Learning according to the constructivist theory

The learning process includes according to Bruner:

- selection and transformation of information,

- decision-making,
- generating hypotheses,
- making meaning from information and experiences.

Learners are able to construct new knowledge based on their current or past knowledge.

- Bruner focuses on the importance of categorization in every aspect of learning. This is done through the interpretation of information and experiences by similarities and differences.
- The focus is on the significance of categorization in learning. “To perceive is to categorize, to conceptualize is to categorize, to learn is to form categories, to make decisions is to categorize.” Interpreting information and experiences by similarities and differences is a key concept.

Effective instruction

Bruner emphasized four characteristics of effective instruction that emerged from his theoretical constructs.

1. Personalized: instruction should relate to learners’ predisposition, and facilitate interest in learning,
2. Content Structure: content should be structured so it can be most easily grasped by the learner
3. Sequencing: sequencing is an important aspect of the presentation of material
4. Reinforcement: rewards and punishment should be selected and paced appropriately.

Bruner also contends that any child can be instructed any subject in some intellectually honest form any stage of development. This notion led Bruner to present his concept of the *spiral curriculum* which states that a curriculum should revisit basic ideas, building on them until the student had grasped the full formal concept.

Instructional scaffolding

Based on Vygotsky‘s ideas about the **Zone of Proximal Development**, Jerome Bruner and other educational psychologists developed the important concept of instructional scaffolding. This refers to the process through which able peers or adults offer supports for learning. This assistance becomes gradually less frequent as it becomes unnecessary, as when constructing a building a scaffold is removed.

Intellectual development

Bruner postulated three stages of intellectual development in his constructivist theory.

1. **Enactive**
   A person learns about the world through actions on physical objects and the outcomes of these actions.
2. **Iconic**
   Using models and pictures to obtain learning.
3. **Symbolic**
   Developing the ability to think in abstract terms.

According to Bruner, when the learner is faced with new knowledge, a combination of concrete, pictorial, and symbolic activities will lead to more effective learning. This holds true even for adult learners. These stages are not necessarily neatly delineated. They are, however, modes of representation that are integrated and only loosely sequential as they “translate” into each other.

UNIT V

ASSESSMENT TECHNIQUES AND EVALUTION MODELS

5.1 MEASUREMENT

5.1.1 Concept of Measurement

Measurement refers to the process by which the attributes or dimensions of some physical object are determined. One exception seems to be in the use of the word measure in determining the Intelligent Quotient (IQ) of a person. The phrase, "this test measures IQ" is commonly used. Measuring such things as attitudes or preferences also applies. However, when we measure, we generally use some standard instrument to determine how large, tall, heavy, voluminous, hot, cold, fast, or straight something actually is. Standard instruments refer to physical devices such as rulers, scales, thermometers, pressure gauges, etc. We measure to obtain information about what is. Such information may or may not be useful, depending on the accuracy of the instruments we use, and our skill at using them. There are few such instruments in the social sciences that approach the validity and reliability of say a 12" ruler. We measure how big a classroom is in terms of square feet or cubic feet, we measure the temperature of the room by using a thermometer, and we use an Ohm meter to determine the voltage, amperage, and resistance in a circuit. In all of these examples, we are not assessing anything; we are simply collecting information relative to some established rule or standard.

5.1.2 Meaning of Measurement

Measurement is actually the process of estimating the values that is the physical quantities like; time, temperature, weight, length etc. each measurement value is represented in the form of some standard units. The estimated values by these measurements are actually compared against the standard quantities that are

of same type. Measurement is the assignment of a number to a characteristic of an object or event, which can be compared with other objects or events. The scope and application of a measurement is dependent on the context and discipline.

5.1.3 Definition of Measurement

Measurement is the process by which a characteristic of an object, person or activity is perceived and understood on specific standards and is described in standard words, symbols or definite units.

5.2 ASSESSMENT

5.2.1 Concept of Assessment

In education, the term assessment refers to the wide variety of methods that educators use to evaluate, measure, and document the academic readiness, learning progress, and skill acquisition of students from preschool through college and adulthood. It is the process of systematically gathering information as part of an evaluation. Assessment is carried out to see what children and young people know, understand and are able to do. Assessment is very important for tracking progress, planning next steps, reporting and involving parents, children and young people in learning.

Assessment is an ongoing process aimed at understanding and improving student learning. It involves making expectations explicit and public; setting appropriate criteria and high standards for learning quality; systematically gathering, analyzing, and interpreting evidence to determine how well performance matches those expectations and standards, and using the resulting information to document, explain, and improve performance.

5.2.2 Meaning of Assessment

Assessment is a process by which information is obtained relative to some known objective or goal. Assessment is a broad term that includes testing. A test is a special form of assessment. Tests are assessments made under contrived circumstances especially so that they may be administered. In other words, all tests are assessments, but not all assessments are tests. We test at the end of a lesson or unit. We assess progress at the end of a school year through testing, and we assess verbal and quantitative skills through such instruments as the Scholastic Aptitude Test (SAT) and graduate record examination (GRE). Whether implicit or explicit, assessment is most usefully connected to some goal or objective for which the assessment is designed. A test or assessment yields information relative to an objective or goal. In that sense, we test or assess to determine whether or not an objective or goal has been obtained.

5.3 EVALUATION

5.3.1 Concept of Evaluation

Evaluation is perhaps the most complex and least understood of the terms. Inherent in the idea of evaluation is "value." When we evaluate, what we are doing is engaging in some process that is designed to provide information that will help us make a judgment about a given situation. Generally, any evaluation process requires information about the situation in question. A situation is an umbrella term that takes into account such ideas as objectives, goals, standards, procedures, and so on. When we evaluate, we are saying that the process will yield information regarding the worthiness, appropriateness, goodness, validity, legality, etc., of something for which a reliable measurement or assessment has been made.

If the students want to determine the temperature of the classroom they would need to get a thermometer and take several readings at different spots, and perhaps average the readings. That is simple measuring. The average temperature

tells us nothing about whether or not it is appropriate for learning. In order to do that, students would have to be polled in some reliable and valid way. That polling process is what evaluation is all about. A classroom average temperature of 75 degrees is simply information. It is the context of the temperature for a particular purpose that provides the criteria for evaluation. A temperature of 75 degrees may not be very good for some students, while for others, it is ideal for learning. We evaluate every day. Teachers, in particular, are constantly evaluating students, and such evaluations are usually done in the context of comparisons between what was intended (learning, progress, behaviour) and what was obtained. When used in a learning objective, the definition provided on the ADPRIMA site for the behavioural verb evaluate is: to classify objects, situations, people, conditions, etc., according to defined criteria of quality. Indication of quality must be given in the defined criteria of each class category. Evaluation differs from general classification only in this respect.

5.3.2 Meaning of Evaluation

Evaluation is a broader term that refers to all of the methods used to find out what happens as a result of using a specific intervention or practice. Evaluation is the systematic assessment of the worth or merit of some object. It is the systematic acquisition and assessment of information to provide useful feedback about some object.

5.2.3 Definition of Evaluation

James M. Bradfield has defined this process of evaluation in the following words: Evaluation is the assignment of symbols to phenomenon in order to characterise the worth or value of the phenomenon usually with reference to some social, cultural and scientific standards.

5.4 ASSESSMENT FOR LEARNING

In classrooms where assessment for learning is practiced, students are encouraged to be more active in their learning and associated assessment. The ultimate purpose of assessment for learning is to create self-regulated learners who can leave school able and confident to continue learning throughout their lives. Teachers need to know at the outset of a unit of study where their students are in terms of their learning and then continually check on how they are progressing through strengthening the feedback they get from their learners. Students are guided on what they are expected to learn and what quality work looks like.

5.4.1 The principles of assessment for learning strategy

The principles of assessment for learning strategy have some common elements. Assessment for learning incorporate:

i. Self-assessment and peer assessment.
ii. Strategies for students to actively monitor and evaluate their own learning.
iii. Feedback, together with evidence, to help teachers and students decide whether students are ready for the next phase of learning or whether they need further learning experiences to consolidate their knowledge, understanding and skills.
iv. Comprises two phases—initial or diagnostic assessment and formative assessment.
v. Assessment can be based on a variety of information sources (e.g., portfolios, works in progress, teacher observation, conversation).
vi. Verbal or written feedback to the student is primarily descriptive and emphasizes strengths, identifies challenges, and points to next steps.
vii. As teachers check on understanding they adjust their instruction to keep students on track.

viii. No grades or scores are given - record-keeping is primarily anecdotal and descriptive.

ix. Occurs throughout the learning process, from the outset of the course of study to the time of summative assessment.

Assessment for learning approach helps teachers and students to know if current understanding is a suitable basis for future learning. Teachers, using their professional judgement in a standards-referenced framework, are able to extend the process of assessment for learning into the assessment of learning.

Assessment for learning involves teachers using evidence about students' knowledge, understanding and skills to inform their teaching

In Assessment for Learning, teachers use assessment as an investigable tool to find out as much as they can about what their students know and can do, and what confusions, preconceptions, or gaps they might have. The wide variety of information that teachers collect about students' learning processes provides the basis for determining what they need to do next to move student learning forward. It provides the basis for providing descriptive feedback for students and deciding on groupings, instructional strategies, and resources.

5.4.2 Teachers' Roles in Assessment for Learning

Assessment for learning occurs throughout the learning process. It is interactive, with teachers:

i. Aligning instruction
ii. Identifying particular learning needs of students or groups
iii. Selecting and adapting materials and resources
iv. Creating differentiated teaching strategies and learning opportunities for helping individual students move forward in their learning
v. Providing immediate feedback and direction to students.

Teachers also use assessment for learning to enhance students' motivation and commitment to learning. When teachers commit to learning as the focus of assessment, they change the classroom culture to one of student success.

Assessment for learning is best described as a process by which assessment information is used by teachers to adjust their teaching strategies, and by students to adjust their learning strategies. Assessment, teaching, and learning are inextricably linked, as each informs the others. Assessment is a powerful process that can either optimise or inhibit learning, depending on how it's applied.

5.4.3 Benefits of Assessment for learning

I) For teachers Assessment for learning helps teachers gather information to:

i. Plan and modify teaching and learning programmes for individual students, groups of students, and the class as a whole.
ii. Pinpoint students' strengths so that both teachers and students can build on them
iii. Identify students' learning needs in a clear and constructive way so they can be addressed.
iv. Involve parents, families, and friends in their children's learning.

II) For students

i. Assessment for learning provides students with information and guidance so they can plan and manage the next steps in their learning.
ii. Assessment for learning uses information to lead from what has been learned to what needs to be learned next.

5.5 ASSESSMENT OF LEARNING

Assessment of learning refers to strategies designed to confirm what students know, demonstrate whether or not they have met curriculum outcomes

or the goals of their individualized programs, or to certify proficiency and make decisions about students' future programs or placements. It is designed to provide evidence of achievement to parents, other educators, the students themselves, and sometimes to outside groups (e.g., employers, other educational institutions). Assessment of learning is the assessment that becomes public and results in statements or symbols about how well students are learning. It often contributes to pivotal decisions that will affect students' futures. It is important, then, that the underlying logic and measurement of assessment of learning be credible and defensible.

1. It is used to plan future learning goals and pathways for students.

2. It provides evidence of achievement to the wider community, including parents, educators, the students themselves and outside groups.

3. It provides a transparent interpretation across all audiences.

4. Assessment that is accompanied by a number or letter grade (summative).

5. It compares one student's achievement with standards.

6. Results can be communicated to the student and parents.

7. It occurs at the end of the learning unit.

5.5.1 Types of Assessment of Learning

1. **Diagnostic Assessment (as Pre-Assessment)**

One way to think about it: Assesses a student's strengths, weaknesses, knowledge, and skills prior to instruction. Another way to think about it: A baseline to work from.

2. **Formative Assessment**

One way to think about it: Assesses a student's performance during instruction, and usually occurs regularly throughout the instruction process. Another way to think about it: Like a doctor's "check-up" to provide data to revise instruction.

3. Summative Assessment

One way to think about it: Measures a student's achievement at the end of instruction. Another way to think about it: It's macabre, but if formative assessment is the check-up, we might think of summative assessment as the autopsy. What happened? Now that it's all over, what went right and what went wrong?.

4. Norm-Referenced Assessment

One way to think about it: Compares a student's performance against other students (a national group or other "norm"). Another way to think about it: Group or "Demographic" assessment.

5. Criterion-Referenced Assessment

One way to think about it: Measures a student's performance against a goal, specific objective, or standard. Another way to think about it: a bar to measure all students against.

6. Interim/Benchmark Assessment

One way to think about it: Evaluates student performance at periodic intervals, frequently at the end of a grading period. Can predict student performance on end-of-the-year summative assessments. Another way to think about it: Bar graph growth through a year.

7. Teachers' Roles in Assessment of Learning

Teachers have the responsibility of reporting student learning accurately and fairly, based on evidence obtained from a variety of contexts and applications. Effective assessment of learning requires that teachers provide:

i. A rationale for undertaking a particular assessment of learning at a particular point in time.
ii. Clear descriptions of the intended learning.
iii. Processes that make it possible for students to demonstrate their competence and skill.
iv. A range of alternative mechanisms for assessing the same outcomes.
v. Public and defensible reference points for making judgements.
vi. Transparent approaches to interpretation.
vii. Descriptions of the assessment process.
viii. Strategies for recourse in the event of disagreement about the decisions.

With the help of their teachers, students can look forward to assessment of learning tasks as occasions to show their competence, as well as the depth and breadth of their learning.

5.5.2 TECHNIQUES OF ASSESSMENT

- **Observation**

In school, during the school hours, the students undergo various institutional environments. During this time the students behave differently. Observation is useful in evaluating students' behaviour in different situations. In English we use the phrases to see and to observe. To see means to study the external body feature along with the internal features. This process of observation is simple as far as it is concerned with the gathering of information about the behaviour and personality of the students.

Observation helps the observer to observe the activities of students, class-behaviour, and hence ascertain the emotional development, mental development and maturity etc. During observation care should be taken that the person who is observed is unaware that he is being observed. Thus the observation should be out of the knowledge of person. Further care should be taken that the behavior which is to be observed should be pre-decided. At a time one person and one characteristic should be observed. Observation can be direct or indirect, controlled or uncontrolled, known or unknown.

- **Types of Observation**

Observations can be categorized as controlled observation and uncontrolled. The observation done in the laboratory is called controlled observation. Controlled observation means the observation is done with the knowledge of the person means that the person who is being observed is aware that he or she is being observed by the observer. Controlled observation thus means conscious observation. Uncontrolled observation means taking observation without the knowledge of person. Uncontrolled observation is thus conducted in a natural situation or condition.

- **Steps of Observation**

Following are the steps for observation:

1. Planning
2. Execution
3. Recording and
4. Interpretation

1. Planning

The characteristic, topic or the thing to be observed is decided in this stage. Whether it is group observation or personal observation, when and how many times the observation would be done, the tools useful for recording the observation etc. is also decided here. The specific type of training, if necessary for observer, is provided. These training are useful during interpretation.

2. Execution

The arrangement for observation is done. The necessary arrangement for the observation as such the natural or artificial arrangement is done. Then after that environment of that opportunity is given so that the person is motivated to behave in some manner and that behavior is observed. Moreover the type of observation, its time and place for observation is also decided.

3. Recording and Interpretation

If the tools or instruments are ready then observation turns a fast process. The observation or the recording is hereby evaluated and interpreted.

5.6 INTERVIEW

"Interview is a purposeful conversation". - John Darle

Interview means a serious conversation which is done by some purpose (Goode and Hatt). Interview means communication or conversation between two persons initiated by interviewer for collecting the information about research keeping in mind the objectives of the interview. Here the information is collected directly by verbal communication between two or more persons and the responses of the respondents are noted. It is a purposeful and serious conversation. The important aspect of interview is establishment of intimacy and to get response from respondent. Thus, the interview is a process of communication or interaction in which the respondent delivers the required information to the interviewer face-

to-face. It is used effectively to collect the useful information in many research situations.

5.6.1 Characteristics of Interview

ϖ It is social interaction ϖ It is a sincere method

ϖ It is direct purposeful conversation.

ϖ It involves various direct involvements of interviewer and respondent.

ϖ It involves various forms of questions to be asked to the respondent.

ϖ It is a purposeful and serious conversation.

ϖ It involves establishment of intimacy between the interviewer and respondent.

ϖ It is a process of communication or interaction.

ϖ It involves the note of responses delivered by the respondent.

ϖ It involves the face-to-face involvement of the respondent and the interviewer.

ϖ It can be conducted one or more time.

ϖ It is a tool to collect the useful information in many research situations,

ϖ It can be in person or in group.

ϖ It exhibits the response excitement by the respondent.

ϖ It is a behavioral method.

5.6.2 Nature of Interview

1. It is in the form of individual or group interview.

2. It is directional or non-directional interview.

3. It is formal or informal interview.

5.6.3 Types of Interview

Interviews are helpful as well resourceful in the research study especially in the personal study, case study, trend studies, historical research, experimental problems etc., to collect the relevant important information. Following are the types of interview:

1. **Diagnostic Interview:**

The problems related with education like adjustment, self concept, anxiety etc. can be known through diagnostic interview. It may be personal or in group. It consists of variety of questions necessary for the diagnosis. The respondent is questioned and thus diagnosis is done.

2. **Remedial Interview:**

In this type of interview is conducted to resolve the diagnosed related problems for their remedy. If may be personal or in group. It consists of variety of questions necessary for the remedy. The respondent is questioned and thus remedial work is planned.

3. **Structured Interview or Controlled Interview:**

In this type of interview the subject matter, questions and methods are pre-decided and fixed. The order of the questions and words are pre-decided and asked accordingly. Thus the content, method, number of question, words and the order of questions are fixed in this type of interview. The questions and answers are manipulated and controlled.

4. **Unstructured Interview or Uncontrolled Interview:**

In this type of interview the attitude, aspirations, beliefs and characteristics of respondent are used to collect the information. It is uncontrolled and flexible whereby pre-decided or pre-organized orders of questions are not emphasized. Here the interview is un manipulated and flexible. To get information about the attitudes, motivations, characteristics and beliefs of the respondent the respondent is questioned in the way he feels comfortable. Unlike structured interview the respondent can give free responses.

5. Individual and Group Interview:

As per the need the individual or group interviews are conducted. Individual interviews are conducted to evaluate the behaviour, attitude or development of the individuals whereas group interviews are taken for specific or general problems etc.

6. Directional Interview:

For fulfilling the needs related to interaction process, uncontrolled interviews are taken. As such subject matter and the area of checking are accurate and pre-organized and as it is used for getting related information they are considered as directional. Here interviewer is independent of form and order of question to be asked in interview means that the interviewer is free to ask any question of any form and in any order.

5.6.4 Steps of Interview

For interview the talent, patience and potential of interviewer, organization of interview and the intimacy between the respondent and the interviewer are of much importance. To conduct an interview, it should be carefully planned and designed whereas the interviewer, it should be skilled and able to develop intimacy with the respondent. The steps of interview include

preparation of interview, execution of interview, note taking and analysis of the information. Following are the steps of interview:

1. **Preparation for Interview:**

Preparation for interview includes the objectives of interview and preparing the interview register. It is actually the mental preparation of the interviewer for the interview. It includes thinking for the objectives, type of interview, number of interviewer, position, place and time of interview etc. by the investigator.

2. **Objectives of interview**:

In this step, the general aims of research are converted into specific objectives. The area, information to be collected, the respondents and the type of interview is decided according to objective.

3. **Prepare an Interview Register:**

While preparing for the interview register the objectives of research are used to frame the questions. The research problem, related variables and the samples are considered. The information of good questions is based on subject matter, inspiration, realities, attitude, expectation of information and the intellect of interviewer and his rapport to develop relations. After the careful evaluation and critical thinking of the above aspects the appropriate types of questions are planned and a register is prepared whereby the investigator can use the appropriate type of questions. It can be in the form of questions, fill in the blanks, rating scale, checklist etc. The responses can be worked of accordingly.

4. **Execution of Interview:**

The execution of interview means conducting the interview. As per the preplan whether be it the personal or group interview, before starting the interview it is necessary to disclose the personal identity and

the objectives and type of interview. The investigator should bear the tape recorder, camera, if necessary and the interview register. The instructions, if any and necessary is delivered to the respondents. The execution of interview included establishing the rapport and eliciting information.

5. Establishing Rapport:

To get the necessary, relevant, important and all the information related to the subject it is necessary to gain the confidence of respondent and thus leading towards a good and successful interview. It is necessary that the interviewer should be polite, well dressed, cool, calm, patient, decent and capable of questioning and must bear good understanding. The investigator should himself be clear with the questions and their responses and the objectives of interview. The investigator should be skilful, positive, joyous, unbiased, capable, and free of any rational and bear the attitude of sympathy thus establishing a good rapport with the respondents.

7. Seeking the Information:

In pre-planned series asking appropriate questions without hurting the feelings of respondent and getting necessary and relevant information is important hence care should be taken that if in any case the respondent gets distracted of the point then those points should be flexible and the respondent is not bored of the interview and thus the information could be obtained.

7. Note taking:

The final step of the interview with the respondent used a paper sheet, predesigned answer sheet, tape recorder or video recorder as per the requirement. Information is then minimized through analysis. To note the complete information from the respondent various activities, skill and talent could be used.

8. **Analysis of the collected Information:**

In this step the investigator does the assessment of the respondent‘s view as per the pre-decided structure. Here the information provided by the respondent is analysed and transformed into specific group or class or category. Then with reference to the objectives of research the analysis and interpretation of the data is done.

5.7 QUESTIONNAIRE

A questionnaire is an instrument containing statements designed to obtain a subject’s perceptions, attitudes, beliefs, values, opinions, or other non-cognitive traits. Questionnaires are one of the most common and popular tools to gather data from a large number of people. A good questionnaire can be a powerful tool to inform your evaluation, and a poorly designed questionnaire can make life difficult for both those that have to complete it, and those that have to analyse the data. The word survey as a substitute for questionnaire, but surveys refer to the broader range of methods to collect information from a group of people. Surveys include questionnaires and semi-structured interviews.

5.7.1 TYPES OF QUESTIONNAIRES

1. **Post-activity questionnaires**

Post-activity questionnaires generally consist of a limited number of questions that ask participants to rate the effectiveness of various aspects of the activity (eg. workshop). The focus of the questions should reflect the key evaluation questions and the related monitoring questions that we have identified in our Monitoring and Evaluation (M and E) plan. Asking questions that do not relate to our monitoring questions is a waste of time and effort, and may also impact your response rate if participants perceive the questionnaire to be too long. Post-activity questionnaires tend to be short in order to reduce the amount of time

respondents need to complete them, and therefore increase the response rate. Questions tend to be quantitative and generally consist of close-ended questions (tick the box, or scales). We can also include open-ended questions but it is best to limit these in order to make data analysis and reporting easier.

2. **Pre-then-post questionnaires**

Questionnaires can be given to participants before and after an intervention (pre and post) in order to compare their behaviours, practices, and household fitting and appliances. This requires participants to complete two questionnaires if we want to have an individual comparison between pre and post intervention. In many cases, we may get some participants completing the pre questionnaire, and others the post questionnaire, which leaves to either use a very small sample, or look at the average results for before and after. This can be an important consideration if the number of participants is small.

3. **Retrospective post-then-pre questionnaire**

The retrospective post-then-pre questionnaire design overcomes some of the constraints of pre-post designs as it is implemented at only one point in time, thereby reducing the possibility of questionnaire fatigue. A benefit of the post-then-pre design is that participants answer the post then pre questions with the same knowledge and understanding of the issue, thereby reducing the possibility of response shift bias. Response shift bias occurs when participants understanding of issues are impacted by an intervention. This leads them to answering post questionnaires differently to the way they understand the prequestionnaire.

4. **Post-project questionnaire**

Post-project questionnaires generally consist of a limited number of questions that ask participants to self-report on the changes they have

undertaken or undergone as a result of taking part in a project. A postproject questionnaire may be used on its own to ask participants what changes that have made as a result of their participation. This type of questionnaire is similar to the retrospective post-then-pre design, except that it does not require participants to articulate their pre-intervention knowledge, attitudes and behaviours. The constraint of only having a post-project questionnaire is that there is a risk of social desirability bias in the answers and we cannot be certain as to the validity of the baseline state. Questionnaires can be paper-based, or electronic. Virtual learning environments often have evaluation or survey tools built into them.

5. **Structured questionnaires**

It is based predominantly on closed questions which produce data that can be analysed quantitatively for patterns and trends. The agenda is entirely predetermined by the evaluator and provides little flexibility for respondents to qualify their answers.

6. **Unstructured questionnaires**

Whilst still having a structured sequence and focus predetermined by the evaluator, are based on open questions allowing respondents the freedom to answer in their own words and therefore to provide greater qualification in their response.

5.7.2 Need of Questionnaires

ϖ To allow for feedback from a large number of students, where it is impractical to collect feedback using other more resource intensive methods.

ϖ To allow each student the opportunity to provide anonymous feedback on their experience.

ϖ Structured questionnaires allow for the exploration of patterns and trends which help to describe what is happening in the context and provide a measure of respondents' opinions, attitudes, feelings, and perceptions about issues of particular concern to the evaluator. They also help to identify patterns and trends that merit further exploration using qualitative methods.

ϖ Unstructured questionnaires allow for richer feedback that may provide insight into explanations for what is happening and participants' opinions, attitudes, feelings, perceptions etc. They also allow for issues to emerge that are not necessarily foreseen by the evaluator.

5.7.3 Advantage

ϖ Questionnaires can be used to collect data quite quickly

ϖ All participants can be given the opportunity to provide feedback.

ϖ Feedback is generally anonymous, which encourages openness and honesty.

ϖ Structured questionnaire data can be processed by software packages such as Excel and SPSS.

5.7.4 Limitations

ϖ Questions could be interpreted differently by respondents. It can be difficult to design questionnaires to minimise this effect.

ϖ Data processing and analysis for large samples can be time consuming.

ϖ It can be difficult motivating potential respondents to complete questionnaires.

5.7.5 Rating Scales

By observing the various school and college activities we find change in behaviour of students. Over and above that various personal

characteristics are also observed. These characteristics separate the human behaviour. The teacher observes such type of behaviour of students by his insight and intelligence and hence evaluates the personality of the student. If this behaviour of the students is evaluated through rating scale then it becomes more reliable. The technique of observation or the tool with the help of which the researcher or observer observes externally the amount of the various characteristics developed in a person and takes a note of it methodologically is called rating scale. Here the evaluation is done in relation to their opinion. Such a tool or instrument which converts the opinion into numbers is called rating scale. It can be used to evaluate the personality traits, creative skills, individual or social adjustment etc.

5.7.6 Types of Rating Scales

The following are the main scales

i. Numerical Scales,
ii. Graphic Scale,
iii. Standard Scales,
iv. Check Lists,
v. Forced Choice Scale,
vi. Ranking method and
vii. Q-Sort-method.

i. Numerical Scales

One of the simplest scales to construct and easiest to use, is the numerical rating scale. This type of tool usually consists of several items each of which names or describes the behaviour to be rated, and then offers as alternative responses a series of numbers representing points along the scale. This simple numerical scale does have face validity and therefore seems to be widely accepted. It is more subjective or bias tool.

ii. Graphic Scale

If the format of the rating scale in such that the characteristics to be rated is represented as a straight line along which are placed some verbal guides, the tool is referred to as a graphic rating scale. It is easy to construct and easy to administer therefore it is widely used of all the specific types of rating scales, but it is less reliable measure.

iii. Standard Scale

In the standard scale approach an attempt is made to provide the rater with more than verbal cues in describe various scale points. Ideally, several samples of the objects to be rated are included each with a given scale value which have been determined in experimental studies prior to the use of the scale.

iv. Check Lists

An approach which is widely popular because it is simple to administer and still permits wide coverage in short time is the behaviour check list. It contains a long list of specific behaviours which supposedly represented individual differences, and rater simply checks whether the item applies. The behavior index of individual is obtained by summing up the items, which have been checked. The modified check list or for reliable result, it is essential for each item as applicable or not applicable or not known.

v. Forced Choice Scale

One of the most recent innovations in the rating scale area has been developed a forced choice technique which has been designed to overcome the major difficulties faced on with earlier techniques. In a forced choice rating the rater is required to consider not just one attribute, but several characteristics all at one time. Assuming that relevant item is difficult for a better to distinguish from which is not predictive if both are equally favourable to the person, the format

requires that only few of several behaviours listed in each item be selected as applicable.

vi. Ranking Method

It is not possible that rater can accurately judge equivalent distances at various points along the scale. Under these conditions a ranking method which requires only that subjects who are being rated to be placed in order of each trait can be used. This approach is essential forlarge number of persons are to be rated. The ranking approach has the advantage of forcing the judge to make a definite discrimination among these rates by eliminating the subjective differences faced by the judges, second advantage that group ranking is uniform.

vii. Q-sort Method

Another relative ranking method is so called Q-Sort developed by Stephenson in 1953. It is one of the best approaches to obtain a comprehensive description of an individual while ranking method gives the comprehensive friction of a group of the individuals. Therefore Q Sort is widely used for rating person's school or one the hob for individual guidance.

5.7.7 Importance of Rating Scale

i. Any characteristic can be measured through rating scale.
ii. It is helpful to evaluate the behaviour which other tools can hardly deal with.
iii. Abstract characteristics can be evaluated by rating scales.
iv. It is helpful to personality or the social development of person.
v. The level of each characteristic of each student of the class can be known.
vi. It is helpful to deliver all the necessary information related to the progress of students.

vii. The rating scale is also useful for the measurement of other methods or techniques.

viii. Within less time more opinions can be obtained.

5.7.8 Limitations of Rating Scale

i. The evaluation being totally based on observation, the bias, liking, disliking, beliefs and assumptions etc., of the evaluator are the hindering factors for unbiased evaluation.

ii. The unawareness about the characteristics leads to the wrong observation.

iii. If large number of behavioural evaluation is to be done then the evaluator being bored of the tick mark generalizes the results.

5.8 SEMESTER SYSTEM

Educational system all over the world has never been consistent over the year. Through advancement and exposure to new concepts, educationists investigate possibilities to teach texts in various feasible manners. According to Myron Tribus (1994), there are innumerable proposals or suggestions for reforms and changes in educational system and there are infinite number of good ideas and research results. The target is not just to pick one of them but rather it is to have comprehensive attitude and approach within which to bring to action many good works known to us. Introduction of semester system can be said to be the product of these investigations. A semester system is an academic term. It is division of an academic year, the time during which a college holds classes. It also might be applicable in the schools and universities. Usually, a semester system divides the year in two parts or terms. Sometimes, it might be trimester or quarter semester.

5.8.1 History and Reaction

Some of the aspects to be considered in the adoption of semester system are that the government's concern with privatization of education system. Privatization of education means that education has been passed on to the private sector and that also means that private sector has a greater say in setting their own fees which can be exorbitantly high although the quality of education provided might not even be half as good. While at one level, privatization of education seems to be a good option given the way the government has abjectly failed to maintain decent standards of education and to add to the poor infrastructure provided by the government. But, privatization is not really a solution to the problem that continues to plague India even 64 yrs after independence that is poor educational standards in the country. The biggest of the challenges with these private institutions is that there is no guarantee of the quality of teaching and more so teachers teaching in these institutions. The other problem with private institutions is that they extract exorbitant amount of money for very short periods of coaching. We have tried privatization of education earlier also without too much success or to put it in a simple way there was a lack of change in the education system even then. So, all said and done, there has to be some serious thinking on the matter of providing quality education in a decent manner and at a decent rate.

The semester system has been introduced on the undergraduate curriculum in affiliated colleges in the university with effect from 2009 admission onwards. The academic world in Assam reacted slightly stunningly with the introduction of semester system. Teachers, students and guardians who were used to the practice and idea of the annual system were slightly hesitant in its implementation. However, it can be said to be the continuation of the past days spent in schools. In the schools, the students and teachers are used to work and study almost the whole year with two or three major breaks as vacations in the

bi-yearly or tri-yearly examinations. The introduction of this semester system can be evaluated as part of the consistency of the school years.

5.8.2 Annual system verses semester system

Comparison between annual system and semester system is very often done. Both the systems have its merits and demerits. Annual system is the traditional system. Annual system covers more syllabuses at a stretch and compels the student to remember all this till the end of the year. Sometimes, two or more topics will be included in the same paper, when specializations are there. Otherwise, certain topics will be omitted and the syllabus diluted. Since at the end of the year only the public examinations are conducted, University gets enough time to prepare question papers and value answer papers. Number of examiners and examinations also can be reduced, which become more economical for Universities. Results can be announced in time and the schedule can be kept.

In semester system, the students get more advantage; since examinations are held within months (what is studied will remain afresh in their brain). The syllabus load also will be less. Different topics need not be combined in the same paper. Students get more chances to improve also. Since examinations come within a few months student unrest also will be less in a semester system. There were many challenges to be faced by the under graduate colleges in preparing the students for the semester system. The semester system is a very proactive system as it engages both the faculty and the students throughout the year in academic activity. While, in the annual system once the student enters the college he feels free and thinks about studying only during the exam time. Semester system not only involves students more throughout the year but also reduces examination burden. The semester system is the need of hour and a very effective one.

5.8.3 Importance and objective of the semester system

Some of the objectives of the semester system are many;

1. To broaden the outlook of the students and instill in them a sense of confidence and responsibility.

2. The student gets more chances to remain well versed.

3. Unit tests act as model tests for the final examination.

4. A detailed account of the student's progress graph can be produced in semester system.

5. To acquaint the students with different forms, styles and thoughts in other parts of the country and beyond.

6. The semester system allows greater interaction with teachers and the students will be more focused on preparing throughout the year.

7. It is also part of the current trend in education system in other parts of the country and beyond.

5.8.4 Merits

There are many merits of this semester system. They may be as follows;

1. It is good for the student community. As these students are the futures of society.

2. It creates awareness of the parallel streams prevalent in various parts of the country.

3. It keeps the students in touch with the books the whole year. It can prove beneficial for the students.

4. The compulsion of tests in between has made the students presence in the colleges all throughout the year. In present world there are too many distractions

available for the youth to go astray. Engagement in tests and examinations in the colleges can keep them busy in more fruitful works, which will be personally beneficial for them too.

5. The students will be constantly evaluated and the depth and breadth of their knowledge will improve.

6. It allows greater interaction with teachers and the children will be more focused on preparing throughout the year.

7. This will give the students to cooperate in the future with the universities, most of who run in the semester system. There shall follow continuity in the imparting of the education and examination system with the introduction of the semester system.

8. For some students, it will be better as there will be fewer courses as compared to annual.

5.8.5 Marks

Marking Scheme for FA

ϖ FA carries a weight age of 40 marks in each term.

ϖ In each subject Four FA (a) activities are to be assessed.

ϖ Each activity carries 10 marks.

ϖ Out of the Four, the best two shall be taken and recorded for 20 marks (2 x 10 = 20) marks

ϖ In each subject two FA (b) tests are to be conducted.

ϖ Each test carries 10 marks.

ϖ Out of the two, the better one shall be taken and recorded for 10 marks (1 x 10 = 10 marks)

ϖ Each Practical carries 10 marks.

ϖ Each practical is to be assessed by the criteria pertaining to that practical / simple project.

ϖ The average of the marks scored by the learners in all the practicals (the best four) shall be taken and recorded for 10 marks.

ϖ Learner who gets less than Grade 'D' should be given remedial measures by the subject teacher until the learner gets greater than or equal to Grade 'D' before moving to the next term.

5.8.6 Marking Scheme for SA

ϖ SA carries a weight age of 60 marks in each term.

ϖ Learner who gets less than Grade 'D' should be given remedial measures by the subject teacher until the learner gets greater than or equal to Grade 'D' before moving to the next term.

5.8.7 Co- Scholastic Activities

ϖ A series of informal learning activities which scaffolds learning at the experiential level.

ϖ Addresses both to the cognitive and affective domains of learning

ϖ Facilitate in building the emotional profile of the learners and their personality to empower them as competent, confident and contributively citizens of the society and in this process they also enrich learning.

ϖ Dealt by the subject teachers and special teachers during the course of curriculum transaction i.e. in the Language, Math, Science and Social Science, Physical Education Clubs.

ϖ Outside including on the occasion of several functions, celebrations, programs and meets.

ϖ Based on the descriptors given in the Co-scholastic Guidelines teachers handling all the subjects of the given class (IX A, IX B etc.,) need to assess each student and record in a common grade register.

ϖ Five Co- scholastic areas viz., Life Skills, Attitude and Values, Wellness, Service Activities and Art and Work Education.

5.8.8 Grading System

I) Recording Grades in Co-scholastic Areas

ϖ At the end of each term, all the subject teachers should record the grades based on the descriptive indicators for each of co scholastic areas in his/her register for reference.

ϖ But, the class teacher is the sole responsible person for awarding the Grade in co-scholastic areas in consultation with the subject teachers.

ϖ Hence, the subject teachers and class teacher should jointly discuss to arrive at the grade for each co-scholastic area for each student as given in the Table .

II) Recording Grades in Co-scholastic Areas

ϖ At the end of year, grade point average for each co-scholastic area should be calculated by averaging the Grade Point of three Terms and converted into corresponding Grade.

Scholastic – Grading system 9 point scale FA 40		Scholastic - Grading system 9 point scale SA 60		Scholastic - Grading system 9 point scale 40+60=100		Grade Point
Marks	Grade	Marks	Grade	Marks	Grade	
37-40	A1	55-60	A1	91-100	A1	10
33-36	A 2	49-54	A2	81-90	A2	9
29-32	B1	43-48	B1	71-80	B1	8
25-28	B2	37-42	B2	61-70	B2	**7**
21-24	C1	31-36	C1	51-60	C1	6
17-20	C2	25-30	C2	41-50	C2	5
13-16	D	20-24	D	33-40	D	4
9—12	E1	13-19	E1	21-32	E1	--
8 & Below	E2	12 & Below	E2	20 & Below	E2	--

III) Marking Vs Grading

Realizing the bottlenecks in our examinations, a lot of thinking along with deliberate efforts to bring about examination reforms has been the feature of post independence Indian education. During this period many thoughtful endeavors were initiated in the areas of paper setting, making system more systematic and objective and for transforming making system into grading system. Many education commissions and committee emphasized the need for a systemic change in examination system in our country. Council of Boards of Secondary Education (CBSE) constituted a committee on scaling and grading in 1981. This committee recommended five-point grading system.

National Policy of Education (1986) and Programme of Action (1992) also recommended the use of grades in place of marks while declaring the results. National Curriculum Framework for School Education published by NCERT (2005) also reiterated the need for declaring results in terms of grades in place of marks.

IV) Concept of Grading System

Evaluation is a powerful and potential process to know the direction in which the children are developing. Evaluation is considered to be one the most important components of education process that helps in assessing the performance of children in a teaching- learning context. The usual practice of assessment in schools is through conducting examinations. One of the major drawbacks of our examination system is reporting students' performance in terms of marks. In order to minimize the limitations of present day examinations system, a major reform concerns transforming the marking system into a grading system.

Grading is a process of classifying students based on their performance into groups with the help of predetermined standards, expressed in a symbolic form i.e., letters of English alphabet. As these grade and corresponding symbols are pre-determined and well defined, the entire stakeholder would understand them uniformly and consistently. While developing the grading system, it is of utmost significance that the meaning of each grading symbol be clearly spelt out.

V) Types of Grading System

On the basis of the reference point of awarding grades, grades are classified as Direct and Indirect, it is also divided into two as Absolute and Relative. The reference point in former classification is an approach and in the latter, a standard of judgment. Absolute and relative grading come under indirect grading.

VI) Direct Grading

The process of assessing students' performance qualitatively and expressing it in terms of letter grades directly is called direct grading. This type of grading can be used for assessment of students' performance in both scholastic and co-scholastic areas. However, direct grading is mostly preferred in the assessment of co-scholastic learning outcomes. While evaluation co-scholastic learning outcomes, the important factors are listed first and then a student's performance is expressed in a letter grade. This type of grading minimizes inter- examiner variability and is easy to use when compared to indirect grading. Direct grading has a limitation that it does not have transparency and diagnostic value and does not encourage competition to the extent required.

VII) Indirect Grading

In indirect grading, student performance is first assessed in terms of marks and then they are transformed into letter grades. Different modes may be followed while transforming the marks into grades. On the basis of the mode of transformation of marks into grades, there are two types of grading, viz. absolute grading and relative grading.

VIII)Absolute Grading

Absolute grading is based on a pre- determined standard that becomes the reference point for students' performance. In absolute grading, the marks are directly converted into grade on the grades on the basis of a pre-determined standard.

Absolute grading can be on a three point, five- point or nine –point scale for primary, upper primary and secondary stages respectively.

i. Three-Point Scale

Students are classified into three groups as above average, average and below average on the basis of pre-determined range of score as shown in below table.

Three- tier classification and their meaning;

Range of marks	Grade	Description
60% and above	A	Above Average
30%- Less than 60%	B	Average
Below 30% C	C	Below Average

ii. Five- Point Scale

Students are classified into five groups, distinction, first division, second division and third division and unsatisfactory on the basis of predetermined range of score as shown in below table.

Five- tier classification and their meaning;

Range of marks	Grade	Description
75% and Above	A	Distinction/ Excellent
60% - Less than 75%	B	First Division/Good
45% - Less than 60%	C	Second Division/ Average
33% - Less than 45%	D	Third Division/ Below Average
Below 33%	E	Unsatisfactory/ Poor

ii. Nine- Point Scale

In absolute grading the range of absolute marks or percentage of marks need not necessarily be of equal size. The range of marks as a predetermined standard for classifying students into different groups may be taken as arbitrary. In a nine-point grading scale, the students may be classified into nine groups, namely, outstanding, excellent, very good, good, above average, below average, marginal

and unsatisfactory. An example of nine-point absolute grading is provided in below table.

Nine- tier classification and their meaning;

Range of marks	Grade	Description
90% and Above	A	Outstanding
80% - Less than 90%	B	Excellent
70% - Less than 80%	C	Very Good
60% - Less than 70%	D	Good
50% - Less than 60%	E	Average
40% - Less than 50%	F	Average
30% - Less than 40%	G	Below Average
20% - Less than 30%	H	Marginal
Below 20%	I	Unsatisfactory

IX) Merits of Absolute Grading

i. Negative effects of pass/ fail eliminated.
ii. No grade signifies failure of students.
iii. Simple and straight forward.
iv. Meaning of each grade is distinctively understandable.

X) Relative Grade

In this system, grades are given based on the student's score compared to the others in the class. This system is used in some universities and colleges and even in some advanced high school classes. In this system, a few students are guaranteed to receive an A and a few students are guaranteed to receive an F.

Point values in this system don't translate directly into letter grades. For example, if most of your students scored between 80 and 90 out of 100, then this

would mean that scores around 85 points are assigned a C. Scores around the 90 mark are assigned a B and the highest scores are assigned an A or A+. If the highest score is a 92, then 92 will equate to an A+. The lowest score will equate to an F. If the lowest score is a 75, then that 75 is an F.

XI) Merits of Grading System

Due to over-emphasis on examinations, both teaching and learning have become examination- cantered. Teachers teach for examinations and students learn for examinations. Award of marks and declaration of results has become the main purpose of schooling. Actually, Examinations are meant to examine the process of learning. They help teachers to locate learning variations among children. Examinations also aim at helping children estimate their learning performance and accordingly improve their proficiencies. But these idealistic purposes of examinations have taken a back seat.

i. As grading involves grouping the students according to their attainment levels, it help in categorizing the students as per their attainments of instructional objectives also.
ii. One of the significant arguments in favour of the grading system is that it creates favourable conditions for classification of students' performance on a more convincing and justifiable scale.
iii. In order to understand why grading is a better proposition than the marking system, it is necessary to look closely into the various procedures of scaling.
iv. Grading is a far more satisfactory method than the numerical marking system.
v. The justification for the superiority of grading system over marking system is that it signifies individual learner‘s performance in the form of a certain level of achievement in relation to the whole group.

XII) Limitation of Grading System

Grading system is considered as the most viable and systematic to assess the outcomes of teaching- learning process; it is not free from criticism due to several reasons which are listed below;

i. There is a possibility of different examiners interpreting the standard differently resulting in inter-examiner variability.
ii. Grading stipulates strict adherence to pre-defined criteria.
iii. In absolute grading, the students are put into different categories on the basis of predetermined range of scores.
iv. Relative grading, though scientific is considered somewhat complicated for teachers, especially when they are not equipped to implement it in their classes.
v. Grades are often awarded without employing both multiple criteria and multiple sources of information.
vi. The percentage of students belonging to different grades is predetermined and the grades are not awarded on the basis of individual student‘s performance but are decided on the basis of performance of students in a larger group.

5.9 COMPUTER IN EVALUATION

Technology has a vital role to play in effective and efficient assessment of learning. Modern technology offers educators a variety of new tools that can be used in the classroom. Technology can help teachers assess their students' learning as well as their performance in the classroom. Use of Information and Communication Technology (ICT) in assessment involves the use of digital devices to assist in the construction, delivery, storage or reporting of student assessment tasks, responses, grades or feedback.

Teachers can use computers to construct their assessment tasks, to deliver these tasks to relevant students and to record and provide feedback and grades to these students. Computers can also be used to analyse students' responses, both to provide feedback to the student on the quality and relevance of their response, as well as to provide feedback to the teacher on whether the task can differentiate between students with different abilities. ICT based assessment can be used to test many different capabilities and skills that are developed by students. There are only a few tasks that might not be suitable for completing and recording electronically, but the number of such tasks is rapidly diminishing as technology becomes more sophisticated and widespread. In many disciplines laboratory equipment can be manipulated remotely and students can undertake real time physical performances that are able to be recorded and used for assessment purposes. We are quickly approaching the stage where our imaginations will be the limiting factor in designing e-assessment tasks.

5.9.1 Computer Assisted Assessment (CAA):

Computer-assisted assessment refers to the use of computers to assess students learning and performance. Computer-assisted assessment is a term that covers all forms of assessments, whether summative or formative, delivered with the help of computers. This covers both assessments delivered on computer, either online or offline, and those that are marked with the aid of computers, such as those using Optical Mark Reading (OMR).

Computer Assisted Assessment is typically formative, in that it helps students to discover whether they have learned what the educator intended and provide timely feedback on how best to teach a subject. Increasingly, it can be summative, with limited feedback typically being given at the end of a course and serving to grade and categorize the student's work. It can also be diagnostic, e.g. by testing for pre knowledge.

5.9.2 Advantages

i. Computer assisted testing is more likely to be objective testing; testing that can be marked objectively and thus offer high reliability.

ii. The benefit is that the tests can be marked quickly and easily, and adapted to meet a wide range of learning outcomes.

5.9.3 Disadvantages

I. It is usually associated with testing knowledge and skills rather than conceptual understanding, because of the frequent use of Multiple Choice Questions (MCQ) formatting, which is believed to test at a lower level of understanding when related to Bloom's Taxonomy.

ii. Construction of good objective tests requires skill and practice and so is initially time consuming;

Iii.Hardware and software must be carefully monitored to avoid failure during examinations;

iv. Security issues can be a problem in Web based CAA.

vi. Students require adequate IT skills and experience of the assessment type.

5.10 MODELS OF CURRICULUM EVALUATION

5.10.1 METFESSEL-WILLIAM MICHAEL EVALUATION MODEL

Metfessel and Michael (1967) present a model with eight major steps in the evaluation process. This may be shown, in brief, in the following steps.

1. Involve everyone who is directly or indirectly affected.

2. Develop goals and specific objectives and arrange them in hierarchical order.

3. Translate goals and objectives into curriculum content and experiences.

4. Select or create evaluation instruments to assess achievement of the objectives.

5. Conduct periodic observations.

6. Make Recommendations.

7. Introducing.

8. Analyze, data, Interpret data and make decisions.

The model clearly suggests, among other things, that evaluators should involve all those who will be 'affected' by the curriculum, i.e., teachers, professional organisations, senior citizens, students, etc., besides experts who conduct periodic observations throughout the implementation and maintenance of the programme using tests, cases, etc.

5.10.2 MICHAEL PROVUS'S DISCREPANCY EVALUATION MODEL (1971)

The Discrepancy Evaluation Model (DEM) developed in 1969 by Malcom Provus to provide information for programme assessment and programme improvement.

- **Definition**

He defined evaluation as the process of agreeing upon program standards, determining whether a discrepancy exists between some aspect of the program and standards governing that aspect of the program, and using discrepancy information to identify weaknesses of the program.

- **Purpose of Evaluation**

His stated the purpose of evaluation is to determine whether to improve, maintain or terminate a program (Gredler, 1996). His model is primarily a problem-solving set of procedures that seeks to identify weaknesses (according to selected standards) and to take corrective actions with termination as the option of last resort. With this model, the process of evaluation involves moving through stages and content categories is such a way as to facilitate a comparison of program performance with standards, while at the same time identifying standards to be used for future comparisons.

- **Stages of Evaluation**

The Provus method identifies four specific stages of all programs. They are:

i) Stage 1: Program Definition

Where the purpose of the evaluation is to assess the program design by first defining the necessary inputs, processes, and outputs, and then, by evaluating the comprehensiveness and internal consistency of the design. Evaluation Stage 1 asks the question "Is the program adequately defined?"

Stage 2: Program Installation

Where the purpose of the evaluation is to assess the degree of program installation against Stage 1 program standards. Stage 2 asks, "Is the program installed as defined in Stage 1?"

Stage 3: Program Process

Where the purpose of the evaluation is to assess the relationship between the variables to be changed and the process used to effect the change.

Stage 3 asks, “Are the resources and techniques being used congruent with the goals of the program?”

Stage 4: Program Product

Where the purpose of the evaluation is to assess whether the design of the program achieved its major objectives. Finally, in Stage IV the question is asked, “Are the program objectives achieved in the implementation?”

Stage 5: Program Comparison.

Provus Terminology Defined The following definitions will be useful in understanding the evaluation which follows:

Enabling Objectives

Intervening behaviours/tasks which students must complete as a necessary basis for terminal outcomes.

Terminal Outcomes

The behaviours the clients are expected to demonstrate upon completion of the program.

Design Criteria

Contains a comprehensive list of program elements (input, process and output) that become the standard of performance in Stage 1.

The Provus Discrepancy Model provides a basis for evaluating programme. Provus considers discrepancies to be the essential clue in program evaluation. Discrepancies point out differences that exist between what program planners think is happening in the program and what’s actually happening. Provus recommends that when discrepancies occur, either program performance or program design standards be changed.

Three important basis phrases in the Provus Model;

i. Discrepancy: mean differences

ii. Program performances: what Extension refers to as program implementation, result, and/or accomplishment.

iii. Program design standard: means objectives

To use the Discrepancy Evaluation Model, need to follow these steps.

STEP 1: Decide which program to evaluate.

This might be:

A. A new program just being developed for introduction.

B. An ongoing program that may appear to be running out of steam.

C. A program that seems to be working just fine, but appears to have switch directions.

STEP 2: Determine objectives for the targeted program. Question to/be ask

A. Are written objectives already available?

B. As participants know it?

C. The advisory committee?

D. If there's any confusion about program objectives, get them clarified before proceeding. Involve several people and, if necessary, determine objective now. To establish the base against which discrepancies can be measured.

STEP 3: Plan the evaluation. Question to/be ask

A. What information do you need to know whether and how well objectives are being accomplished? Whatever information is needed must be possible to collect, and reasonable in terms of the work that collection entails.

B. How can you get at that, which can help? Specialists often help with developing evaluation plans and usually have advice and experience to share. Don't try to reinvent the evaluation wheel all by yourself.

STEP 4: Follow through by implementing plans to collect information.

STEP 5: Identify discrepancies between program objectives and program accomplishments. Question to/be ask

A. Where do differences exist?
B. What have you learned about them – their causes, effect on program, participants, and other pertinent information?

STEP 6: Plan what to do next.

At this point, the Discrepancy Evaluation Model says it's time for remedial planning. Either the basic program design standard or performance should be revised so that objectives and accomplishments are consistent

Use of the Provus Discrepancy Model:

The Provus model is most effective under the following circumstances:

1 When the type of evaluation desired is formal, and the program is in the formative, rather than summative stages.

2 When evaluation is defined as continuous information management addressing program improvement and assessment, and where evaluation is a component of program development.

3 Where the purpose of evaluation is to improve, maintain or terminate a program.

4 Where the key emphasis of evaluation is program definition and program installation.

5 Where the roles of the evaluator are those of facilitator, examiner of standards, observer of actual behaviours, and design expert.

6 When at each stage of evaluation program performance is compared with program objectives (standards) to determine discrepancies.

7 Where the program evaluation procedure is designed to identify weaknesses and to make determinations about correction or termination.

8 Where the theoretical construct is that all stages of programs continuously provide feedback to each other.

5.10.3 STUFFLEBEAM'S MACRO (TOTAL) EVALUATION MODEL

This is an extended version of CIPP model. 'CIPP' here refers respectively to the first letters of;

C - Context;

I - Input;

P - Process; and

P – Product

Stufflebeam (1971) considers evaluation a continuous process and suggests that four types of decisions are required in evaluation efforts.

The four types are:

1. Planning decisions made after context evaluation.

2. Structuring decisions made after input evaluation.

3. Implementation decisions made after process evaluation.

4. Recycling decisions made after product evaluation.

Four kinds of change to be evaluated;

a. Neomobilistic change – Large change, low information.

b. Incremental change – a series of small changes based on low information.

c. Homeostatic change – small change based on much information.

d. Metamorphic change – great change based on much information.

Four types of evaluation in relation to the four decision types:

	Intended	Actual
ENDS	Planning decisions to determine objectives	Recycling decisions to judge and react to attainments
MEANS	Structuring decisions to design procedures	Implementing decisions to utilize, control and refine procedures.

Let us now take up for discussion each of the four evaluation types.

1. Context evaluation: It involves studying the environment in which we run the curriculum. Stufflebeam maintains that context evaluation is the most basic type of activity that provides a rationale for determining objectives. It helps us;

i. define the relevant environment;

ii. portray the desired conditions pertaining to that environment;

iii. focus on unmet needs and missed opportunities; and

iv. diagnose the reason for unmet needs.

It should suggest that context evaluation is not a one-time activity. It continues to furnish baseline information regarding the operations and accomplishments of the total system.

2. Input evaluation:

The purpose of this stage is to provide information for determining how to utilize resources to meet curriculum goals. At this stage we evaluate alternative designs in terms of how they will contribute to the attainment of objectives stated and in terms of their demands upon resources, time and budget. We should consider them in the light of their procedural feasibility. In contrast to context evaluation, input evaluation is ad hoc and micro-analytic. It evaluates specific aspects or components of the curriculum plan.

3. Process evaluation:

This stage addresses curriculum implementation decisions that control and manage the plan or curriculum. Through process evaluation, we can determine the level of congruency between the planned and actual activities. Stufflebeam (1988) presents the following three main strategies for process evaluation:

i) to detect or predict defects in the procedural design or its implementation during the diffusion stages. In dealing with plan or curriculum defects, we should identify and monitor continually the potential sources for the failure of the curriculum. The sources may be logistical, financial, etc.;

ii) to provide information for curriculum decisions. Here we should make decisions regarding test development prior to the actual implementation of the curriculum. Some decisions may require that certain in-service

activities be planned and carried out before the actual implementation of the curriculum; and'.

iii) to maintain a record of procedure's as they occur. It addresses the main features of the project design, for example, the particular content selected, the instructional strategies planned or the time allotted in the plan for such activities.

As process evaluation occurs during the production stage of the curriculum, it helps us anticipate and overcome procedural difficulties and to make pre-programmed decisions.

4. Product evaluation:

It helps us determine whether the final curriculum product in use accomplishes the intended goals. Depending on the data collected, we can decide whether to continue, terminate or modify a curriculum

5.10.4 ROBERT STAKE'S RESPONSIVE EVALUATION MODEL

As the Eisner Connoisseurship Model, the Responsive Evaluation model focuses on describing activities and processes rather than on test scores and outcomes. It seeks to "tell the story of the program".

A formal evaluation plan consisting of ten steps is implemented.

The ten steps are: a. Negotiate a framework for evaluation with the sponsors.

b. Elicit topics, issues and / or questions of concern from the sponsors.

c. Formulate questions for guiding.

d. Identify the scope and activities of the curriculum – the needs of clients and personnel.

e. Observe, interview, and prepare logs and case studies.

f. Pare down information, identify the major issues or questions,

g. Present initial findings in a tentative report.

h. Analyze reactions and investigate predominate concerns more fully.

i. Look for conflicting evidence that would invalidate findings and corroborating evidence that would support findings.

j. Report the results.

Antecedent is any condition existing prior to teaching and learning which may relate to outcome. Transactions are the countless encounters of students with teacher, student with student, author with reader, parent with counselor. Outcome includes measurements of the impact of instruction on learners and others.

- **Antecedents**

Conditions existing prior to Curriculum Evaluation;

i. Students interests or prior learning
ii. Learning Environment in the Institution
iii. Traditions and Values of the Institution

- **Transactions**

Interactions that occur between:

Teachers = Students

Students = Students

Students = Curricular

Materials = Students

Educational = Environment

Transactions = Process of education

- **Outcomes**

ϖ Learning outcomes

ϖ Impact of curriculum implementation on

i. Students
ii. Teachers
iii. Administrators
iv. Community

ϖ Immediate outcomes Vs Long range outcomes

Three sets of Data

1. Antecedents
   ϖ Conditions existing before implementation
2. Transactions
   ϖ Activities occurring during implementation
3. Outcomes
   ϖ Results after implementation
   ϖ Describe the program fully
   ϖ Judge the outcomes against external standards

- **Limitations:**

1. Stirs up value Conflicts, and

2. Ignores causes.