CHAPTER

1

Introduction to Theoretical Foundations

LEARNING OBJECTIVES

After studying this chapter, students will be able to:

- Explain the definition, aims, types, approaches and scope of educational technology.
- Compare and contrast the various educational philosophies.
- Explain the teaching learning process, nature, characteristics and principles.

CHAPTER OUTLINE

Education and Education Technology

- Introduction
- Definitions
- Aims of Education
- Functions of Education
- Principles of Education
- Educational Objectives
- Bloom's Taxonomy of Education
- Lesson Plan
- Latest Approaches in Education
- Educational Philosophies

Teaching and Learning Process

- Nature and Characteristics of Learning
- Principles of Teaching
- Maxims of Teaching
- Technology Education
- Latest Approaches to Learning

KEY TERMS

Domain: Learning can generally be categorized into three domains: (1) Cognitive, (2) Affective, and (3) Psychomotor. Within each domain are multiple levels of learning that progress from more basic, surface-level learning to more complex, deeper-level learning. The level of learning, will vary across learning experiences depending on:

- The nature of the experience
- The developmental levels of the participating students
- The duration and intensity of the experience.

Cognitive stage of learning: The cognitive stage of learning is the first stage of learning when a person is setting out to learn a new skill or technique. This is known as the thinking stage. An example of this could be an athlete learning how to perform a serve in tennis.

Associate stage of learning: The associative stage of learning is the next phase an athlete goes through when learning a new skill. This is known as the practice phase and athletes begin to learn what errors they are making and will continue to practice how to serve in tennis. During this phase, the athletes will notice they are beginning to make progress.

Autonomous stage of learning: This is the final stage of learning and is when a skill has been overlearned and is now automatically recalled when needed. Athletes can now also begin to concentrate on other tasks.

Taxonomy: Taxonomies in education are classification systems based on an organizational scheme. It is a set of carefully defined terms, organized from simple to complex and from concrete to abstract, provide a framework of categories into which one may classify educational goals.

EDUCATION AND EDUCATION TECHNOLOGY

INTRODUCTION

When we termed this word, generally people get the concept of big books, boring lectures, strict teachers, assignments, and so on, and automatically we start feeling sleepy. But as the spectrum of the word is being enhanced, new ways, methods, and techniques are being imparted to make the frame more interesting.

Education is an act or process of acquiring knowledge that will further help people to think and provide them with the reasoning power to keep their judgment polishing their intellectuals and preparing them for mature life.

Education is control gained by enforcing obedience and order with the help of guidance, teaching, and imparting knowledge to the individual.

Education can be a transmission of values, rights, and professionalism in the individual, and as there is a common saying, "that education usually begins at home". Education is not only designed to make the individual professionally stable but also to guide the individual in learning about his/her culture and customs and molding his/her behavior as adulthood, and directing him/her for an eventual role in the society.

As society is becoming more complex day by day and institutions, schools, universities, and other educational centers are becoming more institutionalized and focus more on the curriculum hence, the educational experience becoming more directive and less relative to daily life.

DEFINITIONS

Education is both the act of teaching others knowledge and receiving any knowledge or guidance from others as a part of their experience.

Education is defined as where the act of learning and the act of instructing goes hand in hand. It usually takes place under the guidance or influence of an educator, teacher, elder, younger, or experienced person.

According to Mahatma Gandhi, education not only molds the new generation but also reflects society's fundamental assumptions about itself and the individuals who comprise it. By education, he meant, and all-round development drawing out the best in the child's body, mind, and spirit. He stated that literacy is not the end of education. Education is change in behavior which is not necessary to be found in literate person. It is only the means by which men and women can be educated. In his opinion, education should aim at developing self-reliance, where people learn to earn their livelihood. His aims of education also emphasized character formation and all-round

development (physical, mental, social, moral, esthetic, and religious). According to him, education should make children ideal members of the democratic society. He wanted a school to be a "doing and thinking school", rather than a listening school. He emphasized experiential learning through which the child acquires knowledge and utilizes it for the understanding and control of his social environment. He aspired that education should enable the child to relate what is learned in school to real-life situations. His concept of *Buniyadi Talim* (basic education) stresses learning through craft, which favors the child belonging to the lowest stratum of society. Education through craft was felt desirable as it relieves the child from the stress of purely academic and theoretical instruction.

Swami Vivekananda (1863–1902), a great thinker and reformer of India, provides an insight into what education ought to be. According to him, "Education is the manifestation of the divine perfection, already existing in man". The word "manifestation" implies that something already exists and is waiting to be expressed. The main focus of learning is to make the hidden ability of a learner manifest. Vivekananda believed that the system of education, which existed at that time, did not enable a person to stand on his/her own feet, nor did it teach him/her self-confidence and self-respect. To Swami Vivekananda, education was not only a collection of information but something more meaningful. He felt that education should be man-making, life-giving, and character-building. The aim of education, according to him, is to manifest in our lives the perfection, which is the very nature of our inner-self, which resides in everything and everywhere, which is known as "satchitananda" (existence, consciousness, and bliss). Hence, education, in Vivekananda's sense, enables one to comprehend one's self within as the self everywhere. The essential unity of the entire universe is realized through education. Therefore, man-making relates to the harmonious development of the body, mind, and soul.

AIMS OF EDUCATION

Education is being termed a lifelong process. The aim is to provide education to individuals with a direction and focus on life education is a treasure that cannot be stolen, and if preserved, it's going to benefit the individual in one way or the other. Knowledge and education provided in the right direction help one to be directional in life (Fig. 1.1).

Social Aim

As we all know and are aware of the fact that human beings are considered social animals they cannot live without communication and sharing their thoughts. Therefore, if the education is given to the individual in the right direction it will contribute to making the individual product for the society. Every individual is born with his/her own potential and education helps him/her to fulfill that potential. Society is the result of interaction among the individual. If the person is educated, we

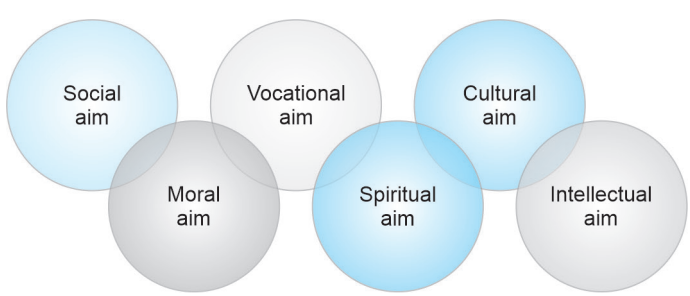

Fig. 1.1: Aims of education

ensure the existence of the individual to be peaceful for society. With education, the individual is motivated to believe in the values of fair play, harmony, and, a healthy competitive spirit. Education makes the student valuable for the nation and productive for the society.

Vocational Aim

Process of education which we are following helps the individual to become capable of livelihood so he can lead a productive life in the society. The individual will be able to learn to respect the dignity of labor. This aim makes the individual be self-reliant and sufficient and bridges the gap between education and vocation. Education provides knowledge and skills to an individual in a fruitful manner.

Cultural Aim

Education teaches the individual about the customs and tradition as well hence we say that education has cultural aims as well as it helps the individual to be civilized and cultured. The person who is well educated automatically develops the esthetics and respect for not only his/her own culture but also for other cultures as well.

Moral Aim

As we all are aware and discussed earlier as well that education helps the individual to build up a respectable personality. We see most of the values inculcating in the individual automatically, like honesty, truthfulness, justice, goodness, purity, courage, punctuality, and dutifulness are nurtured through education.

Spiritual Aim

Education also plays an important role to develop spirituality in the individual when the individual tries to raise himself and works for the welfare of others. We see development of this feature in the individual when one devotes, himself helping others whenever and by whatever means one can, this feature is being termed self-actualization. The individual is not only able to differentiate between right and wrong but also practices the same in life.

Intellectual Aim

As the individual becomes educated the one gains the ability to innate the power of intellectual capacity to think with a rationale and helps the one to lead his life independently and confidently.

FUNCTIONS OF EDUCATION

The functions of education toward individual, society and the nation have been shown in Figure 1.2.

Functions of Education Toward Individual

- As an individual if the person is educated it will help him/her to develop the inborn potentials one has by providing him/her the scope to develop and learn.
- Education helps the individual in the modification of the behavior and the personality as well through learning and working under the guidance of different agencies.

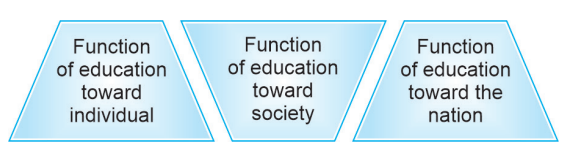

Fig. 1.2: Functions of education

- Education focuses on not only increasing the knowledge of the individual but also helping him/her to work on the overall personality development, which includes the spiritual, social, mental, and emotional aspects.
- Education helps the individual to earn his livelihood by preparing him for the future challenges therefore the education must be imparted in the interest of the child.
- The personality of the individual also grows when one is well educated in the aspect of the personality to focus on all the parameters spiritual, physical, social, intellectual, and esthetical.
- Helping the individual to adjust to society as one possesses the ability to think and tries to adjust to his environment through education.

Functions of Education Toward Society

- **Social change and control:** As we are aware that the society is dynamic and progressive, every individual is a part of the society and the environment around him influences in the development of the individual, some of the old customs and traditions are never changing therefore it is transmitted as it is but we should not blindly believe the old customs and traditions that we are following hence it should be preserved and transmitted with the situation and with the help of education we can always walk with development of science and technology.
- **Reconstruction of experience:** The individual who wants to learn, education for the one is a lifelong learning process, a treasure that grows with experience and time. One cannot live throughout his/her life with past experience hence one learns and grows, therefore, education helps the individual to reconstruct the experience and adjust with the environment.
- **Development of the social and moral values:** Even after the focus is being given to the education still the society is facing a narrow mindset it is nothing wrong with saying that the humans are turning devilish, and that man has started behaving worse than the animals. This type of animalism can be changed to some extent by educating them about Morales. This will help the individual to enhance tolerance, sympathy, fellowship, love, affection, and respect toward elders, helping the needy and poor.
- **Providing the opportunity and equality:** In the Constitution of India, it is being mentioned that every individual irrespective of caste, gender, race, or religion should be given an equal opportunity to grow and with the help of education we can help the individual to know about his/her equal rights and help him/her to develop.

Functions of Education Toward the Nation

There is a famous quote that "*Padhega India Tabhi to Badhega India*" so keeping that in mind if more and more people will get educated, they will be able to contribute to the development of the nation by using their skills and knowledge in one decorum to another. Therefore, we say that education is essential in every stage of life.

PRINCIPLES OF EDUCATION

- How to develop the dependent and interdependent lifelong learning skills.
- It helps in nurturing the intellectuals, aspiration, creativity, curiosity, imagination, and self-respect.

- It helps the individual to work with new innovations and ideas.
- It helps the individual to know about the various social changes and develop accordingly by adapting to those changes.
- It helps to possess the self-determination with an assessment of self for aptitude and inclination.
- It helps individual to develop the quality by participating in the community both ways as teachers and as a learner.
- It helps individual to participate in the open environment that enhances the critical thinking of the individual.
- It helps individual to analyze various discriminations and oppressions while embracing to assess the equitable opportunity for all.
- It helps in the development of the environment which encourages an active learning process.
- It helps in developing both leadership and participatory role.
- It helps in integrating knowledge from multiple disciplines to make thoughtful and informed decisions
- It helps in making the decision based on factual and affective evidence rather than on unexamined opinions.

EDUCATIONAL OBJECTIVES

Introduction

Goals are not necessary to absolutely motivate us but to keep us alive. With the help of an educational objective, the learner should be able to do an undertaking after the program. The learner should be able to successfully complete the educational program by imparting some of the knowledge to the targeted people.

Definition

The result sought by the learner at the end of the educational program that is what the targeted group should be able to do at the end of the learning period that they cannot do beforehand.

- Education objectives are said to be the desired outcomes of intended action through the mode of action.
- Educational objectives are learner and behavior centered.

Types of Educational Objectives

The types of educational objectives have been shown in Figure 1.3.

Central Objectives

It is also known as the institutional objectives as it corresponds to the aim of the educational program.

Example: After the completion of the Baccalaureate in the nursing course, the student will be able to provide preventive and curative care to the community as well as individuals in health or sickness or emergency.

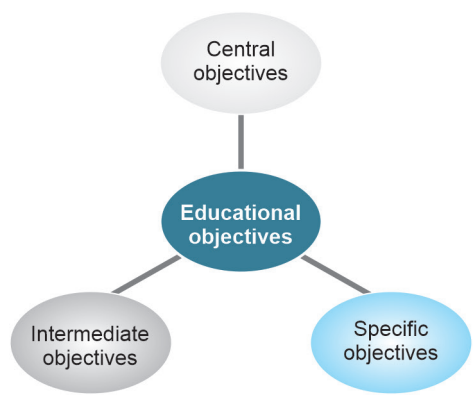

Fig. 1.3: Types of educational objectives

Intermediate Objectives

Intermediate objectives are also known as the departmental objectives which usually arrive from breaking down the professional functions into the components and activities. One of the departmental objectives gives rise to many of the intermediate objectives.

Example: After the completion of Maternal and Child Health, the student should be able to provide preventive and curative care to the female as well as the child.

Specific Objectives

Objectives are the statements that tell us about what the students should be able to do at the end of the learning period.

It is specific and pertaining to learning behavior it is correspondent from precise professional tasks whose results can be measurable and observable along with the given criteria.

Example: The student should be able to withdraw blood samples from an adult with not more than two attempts.

BLOOM'S TAXONOMY OF EDUCATION

The Taxonomy of Educational Objectives, known as Bloom's Taxonomy (Bloom, Engelhart, Furst, and Krathwohl, 1956) is one of the most recognized learning theories in the field of education. Educators often use Bloom's Taxonomy to create learning outcomes that target not only subject matter but also the depth of learning they want students to achieve, and to then create assessments that accurately report on students' progress toward these outcomes (Anderson and Krathwohl, 2001).

An Introduction to Bloom's Taxonomy

Bloom's Taxonomy comprises three learning domains: (1) Cognitive, (2) Affective and (3) Psychomotor, and assigns to each of these domains a hierarchy that corresponds to different levels of learning.

It's important to note that the different levels of thinking defined within each domain of the Taxonomy are hierarchical. In other words, each level subsumes the levels that come before it. So, if we look at the cognitive domain for example (which is represented in Fig. 1.4), we can infer that before a student can conduct an analysis, the first might need to *know* the methods of analysis, *understand* the different elements to review and consider which method to *apply*. It is only then that they will be ready to conduct the analysis itself.

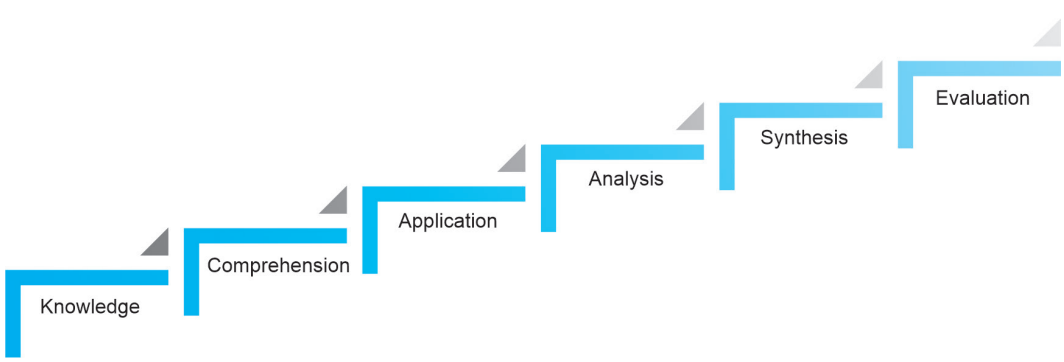

Fig. 1.4: The hierarchy of the cognitive domain of Bloom's taxonomy (1956)

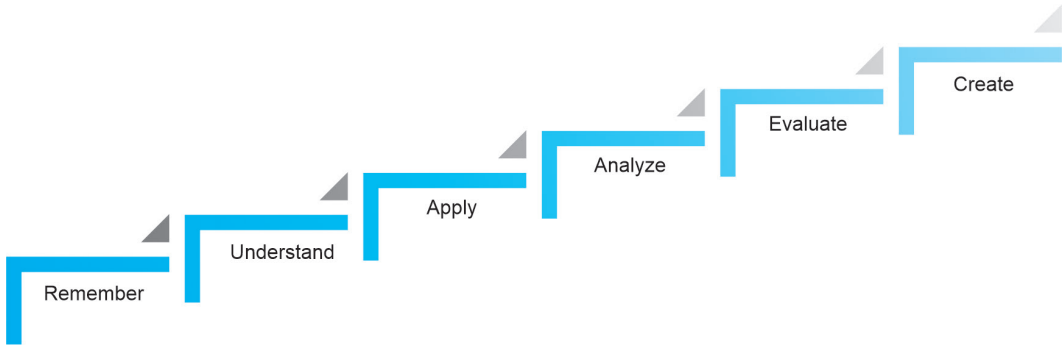

Fig. 1.5: Anderson and Krathwohl's (2001) revision to Bloom's cognitive hierarchy

Bloom's Taxonomy Revised

In 2001, David Krathwohl (one of Bloom's original collaborators) and coeditor Lorin Anderson published a revision to the 1956 hierarchy with contributions from cognitive psychologists, curriculum theorists, instructional researchers, and testing and assessment specialists. This new revised version introduced a key change to the cognitive domain of Bloom's Taxonomy: it shifted the language used from nouns to verbs (*see* Figs 1.5 and 1.6) and thereby focused the attention away from acquisition and toward the active performance of the types of learning involved in each stage of the hierarchy. "Synthesis" was also dropped and "create" was moved to the highest level of the domain.

Cognitive Domain

The cognitive domain is focused on intellectual skills such as critical thinking, problem-solving, and creating a knowledge base. It was the first domain created by the original group of Bloom's researchers. The cognitive hierarchy spans from simple memorization designed to build the knowledge of learners, to creating something new based on previously learned information. In this domain, learners are expected to progress linearly through the hierarchy, beginning at "remember" and ending at "create".

When writing your own learning outcomes, we encourage you to choose verbs that best describe what is expected (e.g., for remember, you might consider defining, identify, list, recall, recognize, match, etc.). A search for "Bloom's Verbs" will provide lists of synonyms to use.

Cognitive Hierarchy

- **Remember**
  - **Sample learning outcome:** Remember the names and relationships of a cast of characters in a play.
  - **Sample assessment/activity:** A multiple choice test designed to test the memory of learners.
  - **Rationale:** A multiple choice test will allow educators to see whether students have effectively memorized the given material.
- **Understand**
  - **Sample learning outcome:** Understand and explain the main ideas of a play or piece of literature.

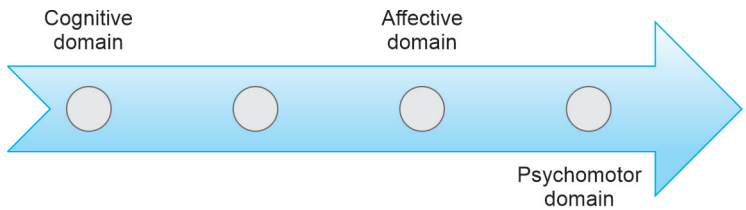

Fig. 1.6: Different domains of education

- **Sample assessment/activity:** Write a short (1 page) paper summarizing the plot and most important events in the play.
- **Rationale:** Writing a summary encourages learners to think about what the most important parts of a piece of literature are, and to decide which aspects of the plot to discard in favor of a concise summary. It allows educators to evaluate whether or not they have understood the main idea of the play.

- **Apply**
  - **Sample learning outcome:** Apply the main ideas/themes in the play to another context.
  - **Sample assessment/activity:** Write an advice column responding to one of the characters.
  - **Rationale:** In doing this assignment, learners will consider the implications of a character's actions outside of the consequences shown in the play.
- **Analyze**
  - **Sample learning outcome:** Be able to analyze the relative roles of each character in the play and their relationships with each other.
  - **Sample assessment/activity:** Write an analytical paper comparing the antagonists and protagonists of the play.
  - **Rationale:** Through this assignment, as learners consider what makes each character an antagonist or a protagonist, they need to use both their knowledge of the play and critical thinking skills.
- **Evaluate**
  - **Sample learning outcome:** Evaluate the decisions of characters in the play, and support your evaluation with textual evidence.
  - **Sample assessment/activity:** Write a response to one of the events in the play, either supporting or rejecting their actions on the basis of evidence from the play as well as personal opinion and projected/actual consequences of an action.
  - **Rationale:** Through this assignment, learners will consider the rationale and consequences for actions in the play, leading them to understand and make judgments about the validity of a character's decision-making.
- **Create**
  - **Sample learning outcome:** Create a new and unique piece of writing using similar plot devices.
  - **Sample assessment/activity:** Create a short story using similar plot devices in a new time or setting.
  - **Rationale:** Through this activity, learners must integrate the plot devices and writing techniques into a new setting, allowing them to practice their creative writing skills and showing their full understanding of the writer's techniques.

Affective Domain

The affective domain focuses on the attitudes, values, interests, and appreciation of learners. The hierarchy associated with it begins with receiving and listening to information, and extends to characterization, or internalizing values and consistently acting upon them. It focuses on allowing learners to understand what their own values are and how they have developed.

Affective Hierarchy

- **Receiving**
  - **Sample learning outcome:** Listen to other students with respect.
  - **Sample assessment/activity:** Be an audience member to another student's presentation, and then write a summary.
  - **Rationale:** Through this assignment, learners will learn how to listen effectively to others as well as remember key details about their presentation (used in writing the summary).
- **Responding**
  - **Sample learning outcome:** Speak effectively in front of an audience and actively respond to others.
  - **Sample assessment/activity:** Present on a subject in front of the class, and answer questions from peers about their presentation.
  - **Rationale:** Through this, learners will become more comfortable with public speaking as well as more comfortable with contributing to a discussion in the form of answering questions.
- **Valuing**
  - **Sample learning outcome:** Demonstrate and explain your own values regarding various topics.
  - **Sample assessment/activity:** Write an opinion piece on any issue, explaining one's own stance and reasons supporting that stance.
  - **Rationale:** Through this, learners will explore not only their own values but why they support their values, giving them a chance to understand more fully their own value system.
- **Organization**
  - **Sample learning outcome:** Compare value systems and understand evidence behind values.
  - **Sample assessment/activity:** Organize and compare different cultural value systems, evaluating the differences between them and why these differences may have arisen.
  - **Rationale:** In doing this activity, learners will consider how value systems are put into place and organized, as well as the evidence that supports different value systems across the world.
- **Characterization**
  - **Sample learning outcome:** Work well in a team of peers.
  - **Sample assessment/activity:** A group project, including group work on any assignment.
  - **Rationale:** By working in a group, learners must balance their own values with the values of the team, as well as prioritize tasks and practice teamwork.

Psychomotor Domain

The psychomotor domain encompasses the ability of learners to physically accomplish tasks and perform movement and skills. There are several different versions including different hierarchies—the examples here fall into Harrow's theory (1972) of the psychomotor domain. This hierarchy ranges from reflexes and basic movement to nondiscursive communication and meaningfully expressive activity.

Psychomotor Hierarchy

- **Reflex**
  - **Sample learning outcome:** Instinctively respond to a physical stimulus.
  - **Sample assessment/activity:** A game of dodge ball.
  - **Rationale:** Learners must react (dodge) the balls that are being thrown at them, allowing them to develop their reflexive skills.
- **Basic fundamental movements**
  - **Sample learning outcome:** Perform a simple action (including running and throwing).
  - **Sample assessment/activity:** A game of dodge ball.
  - **Rationale:** Learners must run and throw to actively engage the opposing team, allowing them to develop these skills.
- **Perceptual abilities**
  - **Sample learning outcome:** Use more than one ability to integrate different sensory perceptions.
  - **Sample assessment/activity:** A game of catch or soccer (or other game involving movement and passing).
  - **Rationale:** Learners must integrate running, visual information about the position of the ball, and predictive information about the future position of the ball.
- **Physical abilities**
  - **Sample learning outcome:** Sustain activity for a set period of time.
  - **Sample assessment/activity:** Run for 25 minutes steadily.
  - **Rationale:** This activity is a measure of the learner's stamina and physical fitness.
- **Skilled movements**
  - **Sample learning outcome:** Adapt one's behavior and movement to better achieve goals.
  - **Sample assessment/activity:** A soccer or other strategic game (football, hockey).
  - **Rationale:** This activity allows teams to change their strategy and individuals to change their physical behavior depending on the response of the other team.
- **Nondiscursive communication**
  - **Sample learning outcome:** Express oneself through purposeful movement and activity.
  - **Sample assessment/activity:** A soccer or other strategic game (football, hockey)
  - **Rationale:** These games all involve teamwork, strategy, and integrative and purposeful movement. Successful teams must integrate all of their senses, communicate through movement, and use a variety of adaptive strategies.

LESSON PLAN

A lesson plan is the instructor's road map of what students need to learn and how it will be done effectively during class time. Before you plan your lesson, you will first need to identify the learning objectives for the class meeting. Then, you can design appropriate learning activities and develop strategies to obtain feedback on student learning. A successful lesson plan addresses and integrates these three key components:

1. Objectives for student learning
2. Teaching/learning activities
3. Strategies to check student understanding

Fig. 1.7: Objectives of lesson plan

Specifying concrete objectives for student learning will help you determine the kinds of teaching and learning activities you will use in class, while those activities will define how you will check whether the learning objectives have been accomplished (Fig. 1.7).

Steps for Preparing a Lesson Plan

Below are six steps to guide you when you create your first lesson plan. Each step is accompanied by a set of questions meant to prompt reflection and aid you in designing your teaching and learning activities.

1. **Outline learning objectives:** The first step is to determine what you want students to learn and be able to do at the end of class. To help you specify your objectives for student learning, answer the following questions:
   - What is the topic of the lesson?
   - What do I want students to learn?
   - What do I want them to understand and be able to do at the end of class?
   - What do I want them to take away from this lesson?

   Once you outline the learning objectives for the class meeting, rank them in terms of their importance. This step will prepare you for managing class time and accomplishing the more important learning objectives in case you are pressed for time. Consider the following questions:
   - What are the most important concepts, ideas, or skills I want students to be able to grasp and apply?
   - Why are they important?
   - If I ran out of time, which ones could not be omitted?
   - And conversely, which ones could I skip if pressed for time?
2. **Develop the introduction:** Now that you have your learning objectives in order of their importance, design the specific activities you will use to get students to understand and apply what they have learned. Because you will have a diverse body of students with different academic and personal experiences, they may already be familiar with the topic. That is why you might

start with a question or activity to gauge students' knowledge of the subject or possibly, their preconceived notions about it. For example, you can take a simple poll: "How many of you have heard of X? Raise your hand if you have." You can also gather background information from your students prior to class by sending students an electronic survey or asking them to write comments on index cards. This additional information can help shape your introduction, learning activities, etc. When you have an idea of the students' familiarity with the topic, you will also have a sense of what to focus on.

Develop a creative introduction to the topic to stimulate interest and encourage thinking. You can use a variety of approaches to engage students (e.g., personal anecdote, historical event, thought-provoking dilemma, real-world example, short video clip, practical application, probing question, etc.). Consider the following questions when planning your introduction:

- How will I check whether students know anything about the topic or have any preconceived notions about it?
- What are some commonly held ideas (or possibly misconceptions) about this topic that students might be familiar with or might espouse?
- What will I do to introduce the topic?

3. **Plan the specific learning activities (the main body of the lesson):** Prepare several different ways of explaining the material (real-life examples, analogies, visuals, etc.) to catch the attention of more students and appeal to different learning styles. As you plan your examples and activities, estimate how much time you will spend on each. Build-in time for extended explanation or discussion, but also be prepared to move on quickly to different applications or problems, and to identify strategies that check for understanding. These questions would help you design the learning activities you will use:
   - What will I do to explain the topic?
   - What will I do to illustrate the topic in a different way?
   - How can I engage students in the topic?
   - What are some relevant real-life examples, analogies, or situations that can help students understand the topic?
   - What will students need to do to help them understand the topic better?
4. **Plan to check for understanding:** Now that you have explained the topic and illustrated it with different examples, you need to check for student understanding—how will you know that students are learning? Think about specific questions you can ask students in order to check for understanding, write them down, and then paraphrase them so that you are prepared to ask the questions in different ways. Try to predict the answers your questions will generate. Decide on whether you want students to respond orally or in writing.
   - What questions will I ask students to check for understanding?
   - What will I have students do to demonstrate that they are following?
   - Going back to my list of learning objectives, what activity can I have students do to check whether each of those has been accomplished?

   An important strategy that will also help you with time management is to anticipate students' questions. When planning your lesson, decide what kinds of questions will be productive for discussion and what questions might side-track the class. Think about and decide on the balance between covering content (accomplishing your learning objectives) and ensuring that students understand.

5. **Develop a conclusion and a preview:** Go over the material covered in class by summarizing the main points of the lesson. You can do this in several ways: you can state the main points yourself ("Today we talked about…"), you can ask a student to help you summarize them, or you can even ask all students to write down a piece of paper what they think we're the main points of the lesson. You can review the students' answers to gauge their understanding of the topic and then explain anything unclear in the following class. Conclude the lesson not only by summarizing the main points but also by previewing the next lesson. How does the topic relate to the one that's coming? This preview will spur students' interest and help them connect the different ideas within a larger context.
6. **Create a realistic timeline:** GSIs know how easy it is to run out of time and not cover all the many points they had planned to cover. A list of ten learning objectives is not realistic, so narrow down your list to the two or three key concepts, ideas, or skills you want students to learn. Instructors also agree that they often need to adjust their lesson plans during class depending on what the students need. Your list of prioritized learning objectives will help you make decisions on the spot and adjust your lesson plan as needed. Having additional examples or alternative activities will also allow you to be flexible. A realistic timeline will reflect your flexibility and readiness to adapt to the specific classroom environment. Here are some strategies for creating a realistic timeline:
   - Estimate how much time each of the activities will take, then plan some extra time for each.
   - When you prepare your lesson plan, next to each activity indicates how much time you expect it will take.
   - Plan a few minutes at the end of class to answer any remaining questions and to sum up key points.
   - Plan an extra activity or discussion questions in case you have time left.
   - Be flexible—be ready to adjust your lesson plan to students' needs and focus on what seems to be more productive rather than sticking to your original plan.

Presenting the Lesson Plan

Letting your students know what they will be learning and doing in class will help keep them more engaged and on track. You can share your lesson plan by writing a brief agenda on the board or telling students explicitly what they will be learning and doing in class. You can outline on the board or on a handout the learning objectives for the class. Providing a meaningful organization of the class time can help students not only remember better but also follow your presentation and understand the rationale behind in-class activities. Having a clearly visible agenda (e.g., on the board) will also help you and your students stay on track.

Reflecting on Your Lesson Plan

A lesson plan may not work as well as you had expected due to a number of extraneous circumstances. You should not get discouraged—it happens to even the most experienced teachers! Take a few minutes after each class to reflect on what worked well and why, and what you could have done differently. Identifying the successful and less successful organization of class time and activities would make it easier to adjust to the contingencies of the classroom. For additional feedback on planning and managing class time, you can use the following resources: student feedback, peer observation, viewing a videotape of your teaching, and consultation with a staff member at CRLT.

LATEST APPROACHES IN EDUCATION

Transformational Education

Transformational learning, also known as transformative learning, is a learning theory relating to how people make sense of their life experiences. It's an extension of constructivism, a framework that states every learner constructs his/her own meaning based on the interaction of new knowledge with previous knowledge. Transformational learning, in particular, posits that learning experiences fundamentally transform a person's way of thinking, thereby altering his/her whole perception about an idea or situation. These changes typically arise from moments of sudden insight, causing the learner to reflect on the revelatory knowledge he/she has gained and how it affects his/her understanding.

The transformational learning theory comes from American sociologist Jack Mezirow. Studying adult subjects who'd decided to pursue a college education after a gap of some years, he found they didn't merely apply previously gained perspectives to their new pursuit but rather required completely new perspectives in which to frame their present situation. It was necessary for them to reinterpret and reassess their prior learning and then adjust their view of the world accordingly.

What is the Transformational Learning Process?

There are 10 stages of the transformational learning process, through which an educator guides the learner to help them to attain awareness and metamorphosis:

1. **Experiencing a disorientating dilemma:** A disorienting dilemma is when a person encounters a situation or idea that doesn't fit with his/her past knowledge and, therefore, his/her present preconceptions. Here, the learner discovers that what they believed to be true is actually false, or they undergo a disruptive event. This jolt to their established view is the catalyst that initiates the process of transformation.
   In the example of adults pursuing a college education, they've experienced a fundamental change in their environment and expectations. Many of them may have previously worked in professional settings, which had their own requirements of them, but now they're in an academic setting that asks them to perform entirely different tasks and pursue unfamiliar goals. Moreover, they're receiving ideas that may contradict information they'd received many years ago. Initially, both instances overwhelm their present understanding of the world, prompting them to find a resolution.
2. **Conducting a self-examination:** At the self-examination stage, the learner reflects on his/her existing beliefs and preconceptions and determines how he/she relates to the present dilemma. They might look back on events in their past and question their applicability to the dilemma. An associated event at this stage is an emotional response. It's not uncommon for learners to react to the dilemma with fear, anger, guilt or shame, and processing the emotion is part of the transformational process.
3. **Critically assessing present assumptions:** At the third stage, the learners begin to review their existing beliefs and preconceptions with a critical eye. They strive to overcome biases, test their ideas and determine which ones hold up to scrutiny. They're also open to conceding that their existing beliefs may be incorrect and are thus willing to consider new information. Thus, their existing beliefs begin to become past assumptions.
4. **Recognizing shared experiences:** Recognizing shared experiences means that the learner undergoing this transformational process realizes that they're not the only ones who've struggled with dilemmas. Others, too, have struggled and currently are struggling to cope with

acknowledging the flaws of previous understanding and trying to supplant old beliefs with new knowledge. This recognition of shared experiences can be a motivational moment, as it leads the learner to understand two revelations. The first is that others have succeeded in the transformational process, so the learner can succeed as well. The second is they're not alone, so they can rely on others for guidance.

5. **Exploring options for new roles, relationships and actions:** Here, the learners begin to wonder what roles, relationships and actions are amenable to their newly developing understanding. They can envision, at least vaguely, a different way of thinking and living after they complete their transformation, and they can imagine conducting their life in that new mode. For example, an employee compelled into a new employment model, such as transitioning from remote work to onsite work, might, at this stage, entertain his/her potential to succeed in the new environment, even if he/she had previously been resistant to the change.
6. **Planning a course of action:** Having recognized the deficiencies in their past assumptions, become emboldened by the recognition of shared experienced and envisioned a potential future in a new mode, the learner is capable of planning a course of action to complete his/her transformation. Here, they begin to determine what further learning may be required to carry them through the remaining stages of the process. With that done, they can strategize a path that facilitates their success.
7. **Acquiring knowledge:** Knowing that further knowledge is necessary to complete their transformation, the learner begins to execute his/her course of action by acquiring relevant information and skills. At this point, they're capable of actively seeking new perspectives. Rather than causing new dilemmas, the new perspectives facilitate the learner's development.
8. **Trying out a new role, relationship or behavior:** Whereas before the learners mentally explored new roles, relationships or behaviors, now they can use their new knowledge to practice them. This stage is when the learner transforms theoretical knowledge into practical knowledge. Actively experiencing a new role, relationship or behavior can help to reinforce their transformation.
9. **Building competence and confidence in the new role, relationship or behavior:** In this stage of the process, the learners continue to exercise their new role, relationship or behavior. As they do so, they become better at it and more certain of their ability to embody it. As a result, they also become more self-reliant in their developing belief, as they've worked to earn it and so understand it.
10. **Reintegration:** The new knowledge has been fully incorporated into the learner's understanding and worldview, so the transformation is complete. The learner can now reintegrate into his/her life with the new understanding he/she has earned and developed. As a result, he/she sees and comprehends the world through a new perspective.

Relationship-Based Education

It is believed that relationship matters a lot in education as well. We learn through relationship and equality, learning takes place with five important elements trust, forgiveness, integrity, hope and compassion.

In pedagogy which is based on relationship, the teachers should be reflexive about the place, culture and lived realities of the students.

- Differential instructions can provide diverse opportunities for students engaged in learning. The educators are also refreshed with knowledge learning from students itself.

- **Culturally responsive teaching:** The culture is a way of life, including attitudes, values, goals and social behavior. The teacher need to learn about the cultural background of the students for quality teaching.
- **Social-emotional learning:** It refers to the enhancement of students well-being in self-regulation, focus, resilience and mind fullness.
- **Trauma informed teaching:** It order to provide safe environment in education the teachers need to be more professionally developed. Now always we have lot of program on emotional intelligence for student to combat trauma.
- **Restorative justice:** It is required to eliminate harm from fractured relationship in education. It is aimed to be inclusive and respectful to resolve conflicts.
- **Engaged learning:** In this type of learning the students involve beyond passive receptivity to strong relationships. Engaged learning in education leads to stronger motivation, reduce problematic behavior and leading to greater knowledge across the academia.

Competency-Based Education

It is an approach to allow students to master the skills or competency at their own pace regardless of environment.

The key features of competency based education are as follows:

- Equity for all students irrespective of their educational background.
- Individual need based support to the students.
- The evaluation is purely based on knowledge and skill gained by them.
- Student can assess themselves and understand their shortcomings on predetermined parameters.

The major aspects of competency-based education (CBE) are curriculum design, teaching learning process and assessment at the end.

Nursing is a profession which need high quality of competence in patient care.

CBC helps students to develop skills rather than completing the syllabus. Employers can search employees with enact skills required for them.

The education institutes can be enabled to bring diversity in the courses offered by them.

Benefits of Competency Based Education

- It is flexible and paced according to the learner capabilities.
- The approach focuses on providing practical and logical solution to the students.
- Students can be helped to attain next level with personalized training.
- Various mentors can be assigned for different competencies.
- CBE advocates skills upgradation at global platform.

Characteristics of Competency Based Education

- Learner centric: Focus on each learner.
- It is outcome based meaning thereby that the objectives are attained.
- It is multifaceted and applies to learner support.
- It is adaptive as per the individual student.

EDUCATIONAL PHILOSOPHIES

The philosophy of education helps in examining the goals, methods of teaching, and creative ideas of education. The various philosophies given are to describe the fundamental and the philosophical analysis. Education plays a key role in building individual and today's generation demands more creative ways of teaching. There are a number of ways though depending upon the different circumstances and different mindset and thinking abilities of the individual.

Before moving on to learning the various philosophies in education, we need to find the answer about what actually are these philosophies? Most of the people involved in educational teaching get confused with the given philosophies of education. Educational philosophies are not only limited to what you as a teacher doing in class but also inculcating the same in day-to-day life lessons and journeys (Fig. 1.8).

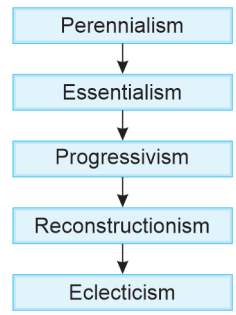

Fig. 1.8: Diagrammatic representation of educational philosophies

Perennialism

In this, the aim of education focuses on acquiring great ideas from the educational content. As acquiring ideas gives the potential to the individual to solve problems. The ideas should not be confined to a specific time rather they should be everlasting for a period. To seek the enduring truths which are constant for all. Teaching these unchanging truths or principles can be critical sometimes as the generation grows, so does the mindset of the individuals as humans are rational beings; therefore, the changing curriculum demands modernization and thus focuses on discipline, literacy, knowledge, and continuum of growth.

Essentialism

Essentialism says that the individual needs to have a common core of knowledge that has a systemic channel and disciplined ways to be transmitted to the group of students. The emphasis on this type of system is being given to the morals and principles that an educational institute should teach to the students. The base of the curriculum is the required knowledge and professional skills. Although it's somewhat hand in hand with that of perennialism. Hence this theory emphasizes more the practical teaching aspects (like in nursing hands-on practice for various procedures) and thus, makes the students valuable to the society. It should focus on the basic objectives for the profession like, nursing, where educators have to be aware of the medical terminologies, short forms, vital signs, basic care, anatomy, and physiology, resourceful, empathetic, emotionally stable, etc. Students should be enlightened about hard work and respect authority. Educators should always help the students to check and work upon their nonproductive habits such as anger, indiscipline, and intolerance, impatient.

Progressivism

Progressivism theory is based on the fact that education should help the individual to develop on the overall aspect of life rather than focusing on the educator's style or content of teaching. This theory

states that the student intellectuals are sensitized by putting them into various experimentations and scenarios. Learning is rooted in the questioning of the learner that is developed with experience. The one who is open to learning is a critical thinker and a problem solver who always tries to find out the meaning of his/her experiences in life. Effective teaching always concentrates on sharing their life experience with the students so that the students somewhat can relate and learn by doing.

Reconstructionism

Reconstructionism is also being termed the critical thinking theory. It helps in preparing the individuals to solve the social problems as we believe that all the leaders are the product of college; therefore, it is important that the individuals should have the curriculum that helps them to foster their development. A person who is a reconstructionist not only enforces the education for generations to solve the problem but also figures out the correct or worthy paths to many of the social problems as well. The classroom following the Reconstructionism theory involves the students in current affairs of the society to know the perception of the students regarding the social issue going on.

Example: As the pandemic effect is devastating on the general population in terms of financial, emotional, psychological, physical, and social ways; therefore, there are certain measures taken by the current ruling government. Few were satisfied and some were not debate on such current topics to understand the Reconstructionist theory.

Eclecticism

Eclecticism is a conceptual approach that does not hold on to the assumptions it works on the fact and evidence instead it believes that having the knowledge and ideas referring to the various source can give us better knowledge. This can sometimes lead to inelegancy and a lack of simplicity in the content. For example, experimenting on a new research topic, we usually take the references of many research articles similar to the selected though we do not use the exact frame or tools used in the referred research but taking references we modify them.

TEACHING AND LEARNING PROCESS

NATURE AND CHARACTERISTICS OF LEARNING

Learning

Learning is defined as the act of acquiring a modified set of knowledge, behavior, skills, and values, or it can be defined as synthesizing the new set of knowledge by various means.

We can also define learning as the process of transformation by taking the information and mixing it with the overall experience of life. The basic changes in life depend upon what we know and what we do as an individual.

If we talk about all living beings, whether they are animals, human beings, or plants, everyone has the ability to learn; therefore, we have the following nature and characteristics of learning (Fig. 1.9).

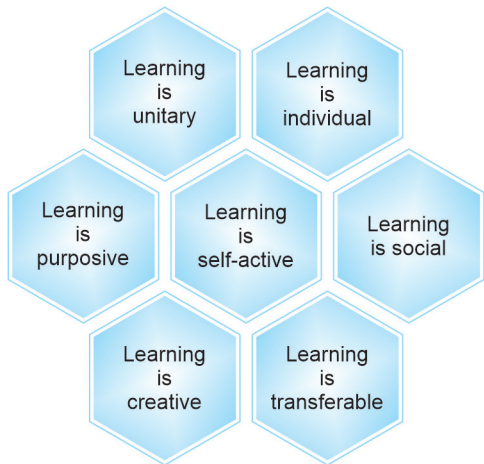

Fig. 1.9: Diagrammatic representation of nature and characteristics of learning

Learning is Unitary

The one who is eager to learn responds to the learning process as a whole. Everyone has a unique way to respond to the learning process**.** To any the learning ability, the individual reacts in intellectually, emotionally, physically, and spiritually simultaneously. For example, if the teacher is correcting the students, the students can take it in a positive way and try to not repeat it again, on the other hand some of the students may feel offended and would do it again and again just to prove themselves right in front of the whole class. The emotions, intellectuals, and physical and social processes are wholly coordinated toward the achievement goal.

Learning is Individual

Each learner differs from one another as we already mentioned therefore, each one wants to achieve different goals during the learning process. Each individual has his own way to adapt in a unique way to learning. A lot of factors are responsible for the individual learning process such as hereditary, environment, religious background, educational opportunities, financial soundness, and health of the individual.

Learning is Social

Learning is influenced by the environment as a human is a social butterfly and tends to learn from the people around if we consider or talk about the social maturity it comes with the various opportunities and develops into actual achievement.

Learning is Self-Active

Every individual learns through his own reactions to the situations there are a lot of ups/downs in every individual's life, and each one has his own ability to react and fight through it and learn or lose. Learning is the personal process each person develops his own habits of learning. The teacher can only set the pattern for the students to learn and imitate, but the intellect is perfected by knowledge, not by activity. The learning process is a process of self-activity, self-direction, and self-realization of the individual's highest potential.

Learning is Purposive

Learning process is the one that directs the individuals toward a specific goal in life, and the goals are determined by one motive or the other person wants to achieve in a variety of forms. So, every individual through learning has one or the other purpose to serve his own desires and nation by contributing what he learned.

The learning process adds more meaning to the learning process when it is related to the individual's interest. Thus, learning enables the individual to make meaningful adjustments in life and set goals, make more meaningful problems, and as a result, help in satisfying the social relationship.

Learning is Creative

Learning process involves both the subjective ways and the creative ways of learning. The learning and teaching process always involves various mind-storming activities and creative forms to enhance the intellect of an individual. We can relate it by using mnemonics to learn various anatomical or physiological processes of various organs or drugs. The mnemonic (OOOTTAFVGVAH) was used to learn the Cranial nerves. Similarly, taking the reference of patient case history presenting the health talks doing the street plays these are some of the creative ways of personal choices. The learner is always considered the primary force and the teacher is considered the secondary force. Learning is a personal choice process.

Learning is Transferable

Transfer refers to knowledge. Whatever the skill and the knowledge gained in one or the other context always affect the situation. If we talk about the teacher conducting the practice in the initial phase about the vital signs monitoring and due to any reason, the student was unable to attend then during the clinical postings when the one is exposed to the real patient will face difficulty in understanding the procedure. There are factors that influence the amount of permanency which are intellectuals and the background experience of the learner and the explicitness and definiteness of the learner as well.

Stages of Learning

The stages of learning have been given in Figure 1.10.

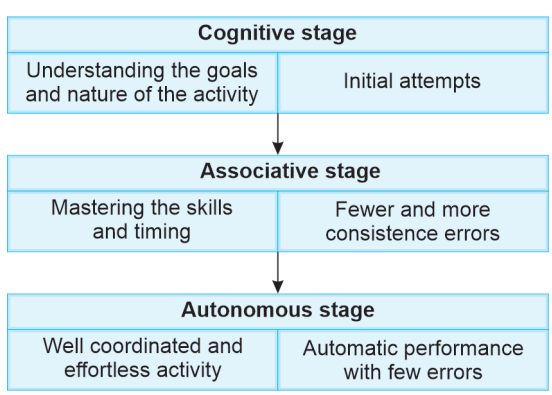

Fig. 1.10: Stages of learning

PRINCIPLES OF TEACHING

- **Principle of aim:** There should be a well-planned aim for teaching a particular lesson. Why we are starting the following unit and what benefits will the student in terms of professional or personal expect can gain from the same.
- **Principle of acting or learning by doing:** Most the educational institutes are focused on the practical tasks and aspects as they believe we see we learn we do we remember and as far as the medical departments are considered nothing major can be taught to them without indulging the students in the practical teaching and practice.
- **Principles of linking with actual life and other subjects:** Learning should always be linked with life events and other subjects so it will create a kind of link and things will be easy to remember if you will be repeating it again and again it's sometimes difficult for the students to learn the anatomical parts of the body but then even in the day to day conversation with friends if we are using 1 or 2 words relatable we will be able to learn the site and name of that organ easily.
- **Principle of planning:** So, whenever you are preparing to present any of the presentations, it's important for you to make notes or script for the same as planning is always better for good and effective teaching.
- **Principle of interest or motivation:** This is the most important principle of all as the whole learning process of the individual depends upon the absorption of the content, and that is only possible when one will be focused and feel motivated to learn.
- **Principle of sympathy and kindly atmosphere:** Good teaching cannot take place in an atmosphere that lacks kindness and sympathy.
- **Principle of creativity:** The idea of a good teacher is to make the content creative and help the student to learn in an interesting way. We can give the students certain signs and symptoms of the patient and ask the group to provide the treatment according to the priority needs.
- **Principle of flexibility and cooperation:** Planning the rigid content is a little bit harmful as we need to focus on brighter as well as the weaker students. The plan of a lesson must provide scope to make necessary changes if need be, and teaching should always be flexible to meet the unexpected situation.
- **Principle of diagnostic and remedial teaching:** Good teaching must be remedial and diagnostic, once the diagnosis of the person is concluded the one must be provided with the remedial measures in terms of any subject if the students are facing a language barrier in understanding the content, then we as educators should be able to provide them with the remedial measures.
- **Principles of looking ahead:** Good teaching looks ahead while it also takes into account the past experiences of the children an open-minded teacher is always forward-looking.
- **Principle of model presentation:** The presentation of material should be really a model one in every way.
- **Principle of selection of material:** The right selection of material will result in proper teaching and hence desired results will be achieved. This benefits both teacher and students.
- **Principle of gradation or division:** Easy and simple things should come first and difficult and complicated things will occur afterward.
- **Principle of individual differences:** A good teacher deals with the students according to their individual differences.

- **Principle of democracy:** The teacher should adopt a democratic attitude with students. He should not be dictatorial.

MAXIMS OF TEACHING

- Teaching is an art and science. Teachers require two things—(1) Knowledge and (2) Process of teaching.
- In the actual classroom, the teacher is required to manage the class with experience and decisions in the form of Maxims. For successful and effective teaching, the teacher must know and use the maxims of teaching.

Benefits of maxims of teaching are as follows:

- Simplify the process of teaching
- Joyful teaching and learning environment
- Purposeful teaching
- To create creativity among students
- To analyze and synthesize by students
- To develop a scientific attitude
- Learning by doing
- To develop critical thinking

The diagrammatic representation of maxims of teaching has been shown in Figure 1.11.

Simple to Complex

When we talk about the simple to easy content in the curriculum, the simple and basic concepts are being taught to the students first, for example, if we talk about Nursing in the initial period the basic nursing procedure like bed-making and vital monitoring are taught first and then the complex procedure like mouth care and wound dressing, etc. and if we talk about the disease condition first the anatomy and physiology of the specific organs and then moving on to the various disease conditions.

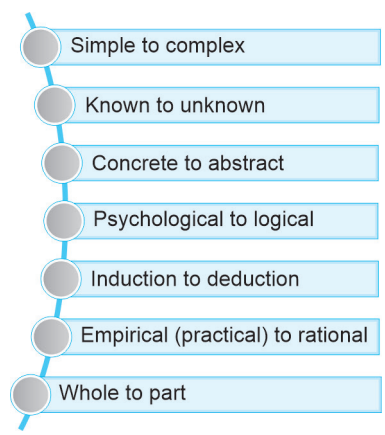

Fig. 1.11: Diagrammatic representation of maxims of teaching

Known to Unknown

Whenever we begin a new topic, we must assure the previous knowledge about the topic so as to get a brief idea from which base to start with the targeted group.

Concrete to Abstract

When teaching the students, it is important to remember to always start with the concrete that is basic and move to the abstract if we see the example many things are abstract like studying the name of drugs, studying the anatomy of a specific organ it will be difficult for the students if directly we start by the action or formulation of the drugs.

Psychological to Logical

Modern education gives more emphasis on the psychology of the child. The child`s psychological development is of utmost importance than any other thing. A teacher teaching should follow this maxim from psychological to logical. Psychological approach brings into consideration the student's interests, capabilities, aptitudes, development level, and responses. The teacher should consider psychological selection of the subject matter. The approach considers the structure of the content into logical order. It is child-centered maximum. For example, a teacher tells about the disease condition to students when they are not interested in discussing it, with this a teacher proceeds from psychological to logical sequence.

Induction to Deduction

Procedure of deriving known laws, rules, or formulae from particular examples is called induction. If a statement is true in a special situation, it will also be true in other similar situations. It means drawing a conclusion from a set of examples. Using this approach, a teacher has to show instances or incidents and talk about similarities of their attributes. The deduction is just the opposite of induction. In it, we derive a certain conclusion from known laws, rules, or principles. For example, in language teaching, before giving the definition of a noun, the students are acquainted with the example of nouns, like man, chair, Delhi, etc. and then they are led to the general definition of the noun. So, a good teacher always proceeds from induction and finishes at deduction.

Empirical (Practical) to Rational

Empirical (Practical) knowledge is based on observation and hand on experience, which does not require reasoning. However, rational knowledge is based on arguments and explanations. For example, students are taught, water boils on heating. They should initially heat the water and see it boiling. Then they should be explained, during heating process, the molecules gain kinetic energy and there is molecular thermal agitation, which makes the water boil.

Whole to Part

This maxim is the result of the Gestalt theory of learning whose main focus was to perceive things or objects as a whole and not in the form of parts. The whole is more relatable, motivating, and useful than the parts. Teacher should first give a synoptic viewpoint of the lesson and then analyze it into different parts. In this way, maximum learning is possible. It is the reverse of the maxim "analyses to synthesis".

TECHNOLOGY EDUCATION

Process by which the knowledge, skills and attitude are transmitted to the members of the society. Technology refers to the techniques as well as technical contrivances which enhance a process. It is a systematic way of applying the technique to achieve an objective.

Meaning

Educational technology can be defined as the systematic application of technology in the field of education.

Nature of Educational Technology

Educational technology is a comprehensive term and is not to be viewed in terms of its parts or processes. It includes instructional technology, teaching technology, programmed learning, micro-teaching, etc.

Scope of Educational Technology

Educational technology tries to study the phases of teaching, skills of teaching and learning, principles of teaching, etc. Educational technology as a discipline strives for the formulation of objectives and goals of education based on individual and social needs. Educational technology includes planning of curricular and noncurricular inputs on the basis of goals and objectives of education.

Education is dependent of philosophy due to the following reasons:

- **Philosophy determines the real destination toward which education has to go:** Education is a conscious dynamic process which needs proper guidance and supervision. Without proper guidance and supervision, it cannot achieve its goal. Philosophy determines the goal of life and also provides suitable and effective guidance and supervision for education to achieve that goal. Without the help of philosopher, education cannot be a successful process of development and achievement. Spencer has rightly remarked—"True education is practicable only by a true philosophy."
- **Philosophy determines the various aspects of education:** Some scholars believe that philosophy is concerned with abstract items and conceptions only, while education deals with practical, concrete things and processes. Hence, the two are different and there exists no relation between them. But this is a wrong belief. Both philosophy and education are intimately and integrally connected with each other. Separation between the two is not possible on any account. It is the philosophy, we must know, that has been influencing all aspects of education since the very beginning and will go on influencing education for all times to come. Once again it will be better to recollect the saying of Ross that—"Philosophy and education are like the sides of the same coin, present different views of the same thing, and that one is implied by the other."
- **Great philosophers have been great educationists also:** History bears eloquent testimony to the fact that great philosophers have been great educationists also of their times. Plato, Socrates, Locke, Comenius, Rousseau, Froebel, Dewey, Gandhi, Tagore, Aurobindo Ghosh and others who were great philosophers of their times have also talked about education. Their philosophical treatises have been important guide books for educational planning and determination of educational aims for children of the world. In other words, all great philosophers have employed education as a means to translate their philosophical ideas into practice for the people to follow and develop themselves. Philosophy is dependent on education due to these reasons.

LATEST APPROACHES TO LEARNING

Experiential Learning and Its Importance

Experiential learning is the process of learning by doing. By engaging students in hands-on experiences and reflection, they are better able to connect theories and knowledge learned in the

classroom, demonstration room, and their application in clinical setting and to real-world situations. Nursing being a skill profession experimental learning is of utmost importance.

Experiential learning opportunities exist in a variety of nursing practice. These may include community service, service-learning, undergraduate research, and culminating experiences such as internships, student teaching, and capstone projects, to name a few.

When students participate in experiential education opportunities, they gain:

- A better understanding of learning activity
- A broader view of the world and an appreciation of society at large
- Insight into their own skills, interests, passions, capabilities and values
- Opportunities to collaborate with diverse organizations and people
- Positive professional practices and skills
- The gratification of assisting in meeting community needs
- Practice of professional ethics, self-confidence and leadership skills.

Reflective Learning

Reflective learning involves actively monitoring and assessing ones knowledge, abilities, and performance during the learning process, in order to improve the process of learning and its associated outcomes.

For example, if you're studying for a test, you can engage in reflective learning by asking yourself how well you understand each of the topics that you're studying, and based on this figure out which topics you need to spend more time on.

Reflective learning, and see how you can engage in it yourself, as well as how you can encourage others to engage in it.

Scenario-Based Learning

Scenario-based learning (SBL) is an instructional strategy where you as learner pick your own path based on the choices they make. Learners are placed in interactive scenarios, often based on real life situations. It is one example of the increased Motivational design of learning and is a highly effective form of online training.

Also known as branching scenarios, SBL learning theory provides a more experiential learning process than traditional learning materials. Gaming can be used for learning by giving a scene from the clinical situation in Nursing.

Every day games can be used as EDUTAINMENT.

Simulation-Based Learning

Once the domain of those faculties who enjoyed the technical aspects of using computerized mannequins, has now moved to center stage in nursing education. Nursing programs realize that they can no longer afford to consider simulation as merely an "add-on". Simulation today includes role play, standardized patients, virtual simulation, and computerized mannequins. It is now imperative to integrate simulation throughout the entire curriculum. Today, simulation allows students to learn skills; develop clinical reasoning abilities; and to become competent in caring for

patients/families in a safe environment. The variety of simulation-based learning options can offer a way to replace traditional, and often hard to find, clinical experiences.

Blended/Hybrid Learning

Hybrid learning is when conventional face-to-face teaching is combined with offline or distance learning approaches, like experiential learning and remote course delivery. The aim is to use the right combination of learning strategies to efficiently teach content while still meeting students' learning needs. The additional learning strategies are intended to supplement rather than replace conventional face-to-face training. If a class meets two days per week, for example, a hybrid learning teacher can schedule one day for an in-class lecture and the other for a hands-on lab or online assignment. This type of learning can be used to enrich learnt experiences.

Here are some examples of hybrid learning tools:

- Video conferencing
- Learning management systems
- Online tasks
- Microteaching

SUMMARY

- Education, being a never ending process, is irresistible and unstoppable in nature.
- Education enlightens a person from within and aids in all-round development. It drives all of us in achievement of our goals of life and in this pursuit only learners/students tend to be curious in classrooms.
- Various education philosophies include idealism, realism, pragmatism, existentialism and post-modernism, humanism, behaviorism, etc.
- Education theories and philosophies often discussed and understood interchangeably, i.e., perennialism, essentialism, progressivism, reconstructionism and electicism.
- Aims and functions of education are directed toward self, society, country and civilization at large.
- Learning is a technique of being educated. It may take place in isolation, in society, actively, passively with or without defined purpose.
- Learning principles emphasize ways and means of better and quick learning such as learning by doing, planning, creation, self-motivation, understanding the environment, looking forward appreciating the significance of flexibility and cooperation, etc.
- Teaching is a complex process and is backed by expertise in content as well as by skills of delivering the content.
- Teaching is maximized by following the principles like simple to complex, known to unknown, concrete to abstract, psychological to logical, induction to deduction, empirical to rational and whole to parts.
- Bloom's taxonomy aids to measure the width and depth of learning. Various pedestals in revised Bloom's hierarchy are remember, understand, apply, analyze, evaluate and create.
- Three domains of education include cognitive, affective and psychomotor.
- A lesson plan is considered a tool of effective and planned teaching.
- Steps of preparing a comprehensive lesson plan start from clear-cut understanding of learning objective, making the introduction, penning the main body of lesson in appropriate series,

evaluation criteria, summary and conclusion and above all time duration of each activity while executing the plan.

- Transformational education/learning makes use of previous knowledge and life experiences while learning the new. In the process, they examine their already existing concepts, beliefs, understanding, try to learn from others' experiences, analyze the earlier and new role, develop newer skills with confidence.

CONCLUSION

Education, being a never ending process, is irresistible and unstoppable in nature. It enlightens a person from within and aids in all-round development. Education drives all of us in achievement of our goals of life and in this pursuit only learners/students tend to be attentive and curious in classrooms. Process of education is believed to have started in mother's womb until the last breath. All over the world great thinkers, philosophers and travelers have guided the society in unique ways. In its entirety, it is not merely dependent upon institutions of education though facilitated by these institutes. A good education environment is also reliant upon the political will, socioeconomic status of people, culture, beliefs and policies and schemes pertaining to education.

ASSESS YOURSELF

Long Answer Questions

1. Write details about educational philosophies.
2. Write essay on latest approaches of education technology.

Short Answer Questions

1. What are the functions of education?
2. Write the maxims of teaching.
3. Write about Bloom's taxonomy.

Multiple Choice Questions

1. The all-round development drawing out the best of a child was envisaged by:
a. Swami Vivekananda
b. Aurobindo Ghosh
c. Mahatma Gandhi
d. Dr Radhakrishnan

2. Reconstruction is termed:
a. Critical thinking theory
b. Assumption theory
c. Inclusion theory
d. Exclusion theory

3. Education is termed:
a. Fitness of good.
b. Living a better life by caring good
c. Lifelong process
d. Process to achieve something

4. Arms of education are:
a. Social, volcano and cultural
b. Normal, spiritual and intellectual
c. To get an employment
d. Both (a) and (d)

5. **Principles of education is except:**
   a. Self-determination
   b. Develop independent learning skills
   c. Develop leadership skills
   d. To guide people
6. **Learning is except:**
   a. Self-directed
   b. Self-activity
   c. Not transferable
   d. Creative
7. **The most recognized learning theory in education is:**
   a. Bloom's taxonomy
   b. Motivational theory
   c. Theory of avoidance
   d. None of these
8. **Affective domain of learning includes:**
   a. Attitude, values, interest and appreciation
   b. Attitude, moral, interest and appreciation
   c. Attitude, moral and appreciation
   d. Attitude, values and interest
9. **Transformation learning process is:**
   a. Based on learning by doing
   b. Make sense of other life experiences
   c. Make sense and people's own life experiences
   d. Based on cognitive values
10. **Education is dependent on:**
   a. Anthropology
   b. Sociology
   c. Philosophy
   d. Geography
11. **The objectives of lesson plan should be:**
   a. Learner oriented
   b. Teacher oriented
   c. Both (a) and (b)
   d. None of these
12. **The learning domains of Bloom's taxonomy are:**
   a. Cognitive and psychomotor
   b. Alternative and cognitive
   c. Cognitive, affective and psychomotor
   d. Psychomotor and effective
13. **Central objective is also known as:**
   a. Specific objective
   b. Departmental objective
   c. Institution objective
   d. Main objective
14. **The maxims of learning is:**
   a. Known to unknown
   b. Concrete to abstract
   c. Sample to complex
   d. All of these
15. **The stages of learning are:**
   a. Cognitive, associate and disassociate
   b. Cognitive, autonomous and captive
   c. Cognitive, associative and autonomous
   d. Cognitive, associative and behavior

Answer Key

1. c	**2.** a	**3.** c	**4.** d	**5.** d	**6.** c	**7.** a	**8.** a	**9.** c
10. c	**11.** a	**12.** c	**13.** c	**14.** d	**15.** c			

Further Readings

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