
UNIT 9 PLANNING TEACHING-LEARNING

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9.1 INTRODUCTION

Teaching and learning are purposeful activities. Teaching is directed towards certain desired learning in learners to unlock their potentials. Proper Planning for teaching-learning is essential to ensure that all learners engage in a meaningful learning. Planning is a vital component of the teaching learning process which provides a complete structure and context for both teacher and learners to accomplish the educational goals. Planning can be organized in several ways on a variety of levels and can occur at annual/ year levels, at unit levels and lesson or topic levels.

In this unit you will be familiarized with the various aspect of planning for teaching and learning. It discusses various considerations for instructional planning in classroom. Annual planning, Unit planning and Lesson Planning will be elaborated in detail. You will also know about the concept mapping as a technique for content and pedagogical planning and Constructivist Lesson Planning.

9.2 OBJECTIVES

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

- state the meaning of instructional planning;
- state the various considerations for instructional planning in classroom;
- define an annual plan, unit plan and lesson plan;
- differentiate among an annual plan, a unit plan and a lesson plan;
- prepare an annual plan, a unit plan and a lesson plan in your subject of study;
- explain concept mapping as a technique for content & pedagogical planning; and
- develop your lesson plans based on constructivist practices.

9.3 CONSIDERATIONS FOR INSTRUCTIONAL PLANNING IN CLASSROOM

Instructional planning aims to organize instructional activities effectively. It incorporates the process of using appropriate curricula, instructional strategies, and resources during the planning process to address the diverse needs of learners. While considering the instructional planning, it is important to recognize that learners in schools form enormously diverse groups. Formally and informally both teacher and taught constantly interact with the school environment during structured or unstructured time. Instructional planning depends upon several factors. Some considerations for instructional planning are as follows:

9.3.1 School Environment

A school environment is a broad term that incorporates several facets of schooling. It sets the platform for external factors that affect the whole teaching learning process. A positive school environment must have appropriate physical facilities, well equipped and managed classrooms, good peer support, and adequate health facilities provided by school which must be regulated through effective policies and practices of discipline. Meaningful school environments have significant influence on teacher as well learner outcomes. A positive school environment influences the attendance and engagement of learners in school. In general, curricular and co-curricular success of learners is related to attendance and engagement of learners in various school activities. Fair and rational school discipline policies and behavior management practices also encourage learners to attend the school and achieve success. Hawkins, Catalano, Kosterman, Abbott, & Hill (1999) reported that when learners find their school environment to be supportive and caring, they are less likely to become involved in abuse, violence, and other problematic behaviors. Poor school environment is strongly linked to poor achievement, low attendance and low learner disengagement. Caring and supportive school environments contribute to learners' academic attitudes, motivation, engagement, and goal setting. It is the prime responsibility of the school to set positive and supportive environment.

Schaps (2005) mentioned that the school environment is shaped by many factors:

- The school's espoused goals and values
- The principal's leadership style
- The faculty's teaching and discipline methods
- The policies regarding grading and tracking
- The inclusion or exclusion of learners and parents in the planning and decision-making processes.

9.3.2 Physical Environment

Physical environment of school refers to the material and tangible conditions of the school. It includes Natural environment (air, noise, water, green space, etc.), Built environment (building, infrastructures, roads, transport systems, etc.) and Socio-economic and Cultural environment (the social and economic characteristics of the societies and communities in which the school is placed).

WHO (2003) defines, **The physical school environment encompasses the school building and all its contents including physical structures, infrastructure, furniture, and the use and presence of chemicals and biological agents; the site on which a school is located; and the surrounding environment including the air, water, and materials with which children may come into contact, as well as nearby land uses, roadways and other hazards.**

The physical environment of school is a key factor in the overall health and safety of learners and staff. It must be designed and maintained to be free of health and safety hazards and promote learning. School policies must be practiced to ensure food protection, sanitation, safe water supply, healthy air quality, good lighting, safe playgrounds, violence prevention, and emergency response, among other issues that relate to the physical environment of schools. The Education Commission (1964-66) had mentioned that large classes would do 'serious damage to the quality of teaching'. It further reported that 'in crowded classrooms, all talks of creative teaching ceases to have any significance'. Learners' achievement can be affected either positively or negatively by the school environment. Earthman (2004) *rates temperature, heating and air quality as the most important individual elements for learner achievement*. Good physical elements in the classrooms improve comfort, well-being and achievement. Schools must offer a physical environment to promote and provide opportunities for physical activity like recreation and sports as it is necessary for optimal health and functional capacity. It also counteracts disabilities and diseases common to ageing.

9.3.3 Psychological Environment

A psychological environment based on the interaction of teacher and taught is created beyond the physical environment. A positive psychological environment responds positively to "All" learners irrespective of diversity among learners. It ensures inclusiveness by welcoming all children regardless of their gender, socio-economic status, ability, and language and recognizing the value in all people. A Positive Psychological environment enhances achievement. According to Graetz (2006), *Environment that elicits positive emotional responses may lead not*

only to enhance learning but also a powerful, emotional attachment to that space. It may become a place where learners love to learn, a place they seek out when they wish to learn, and a place they remember fondly when they reflect on their learning experiences. It satisfies learners' basic psychological needs for safety, belonging, autonomy, and competence. Watson (2003) as quoted by Schaps, (2005) mentioned that when *these basic needs are fulfilled, learners are more likely to become engaged in and committed to the school and, therefore, inclined to behave in accordance with its expressed goals and values.* It helps learners to develop their empathy for others, their social skills and social understanding, and their understanding of the values of the community. Thus, learners are in need of a supportive school environment. When schools fail to meet learners' needs for belonging, competence, autonomy and safety, learners are likely to become less motivated, more alienated, and poor performers. If learners' basic psychological needs are satisfied by creating positive school environment, they are more likely to become engaged in school, behave and act in accordance with school goals and values, develop social skills and understanding and contribute positively to school and the community.

9.3.4 Learner

A classroom has a diverse group of learners. Diverse learners include learners from socially, economically, culturally, and linguistically diverse families, communities and learners of different abilities. It is a challenge for teachers to cater to the needs of all in an inclusive classroom. In an inclusive classroom, both teacher and learner work together, and it is required that the learner is active rather than just being a passive listener. Together they create a safe and supported environment and are encouraged to express their views and concerns. It is the responsibility of teachers to make sure that all of them comprehend the concepts. All the learners must be actively engaged in what they learn to make teaching-learning interesting. Learners must be encouraged to take an active interest in learning. The focus must be on the learners experiencing the harmonious environment which would prove helpful in developing higher order thinking skills, effective communication skills and collaborative skills. Learners must be encouraged for self-direction because self-directed learners not only encourage each other, but also work with their teacher to achieve academic and behavioural goals. Teachers should employ a variety of strategies to promote responsible decision-making ability among learners and make them self-reliant learners.

9.3.5 Content

In instructional planning, content plays a significant role as it refers to the information provided through the medium. In learner centered classroom, the way in which the information is presented is considered important. Content must be explicitly viewed from the multiple perspectives keeping in mind the diversity in group. It must be presented in a manner that reduces learners' experiences of marginalization. It should cater to individuals' experiences, values, and perspectives. It must include multiple perspectives of topic rather than focusing only on a single perspective.

Activity 1

Visit any nearby school and prepare a report on school environment.

Check Your Progress

Note: a) Write your answers in the space given below:

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

1. Why there is a need to view every child as a learner??

.....

2. Define Physical School Environments

.....

3. What do you understand by diverse learner?

.....

9.4 PLANNING FOR TEACHING

An effective teacher's teaching begins before his/her entering into the classroom and teaching. Effective teaching is a planned activity. Teacher plans the content of instruction, selects teaching materials, designs the learning activities, plans the pacing and allocation of instruction time etc. Planning should be a cyclic process, incorporating decision of learning outcomes, strategies for teaching and evaluation. This includes planning on a whole -*school, subject, year and class level*. Planning must provide opportunities to all learners to perform their best.

A teacher is most important unit of teaching-learning process. Researches reveal that the teacher is the single most important factor affecting learner achievement (Marzano et al., 2003).

In his book, Wong (2009) has stated qualities of an effective teacher. According to him, there are several characteristics of an effective teacher, as:

- (i) an effective teacher has positive expectations for learner's success; and lesson plan reflects such expectations,
- (ii) an effective teacher knows how to design lessons for learner's mastery; which is reflected in lesson plan, and
- (iii) an effective teacher is also an extremely good classroom manager; which is possible via good time management during class time and that is possible only by effective implementation of a good lesson plan.

Teacher planning is an important variable contributing to learner's achievement. Planning is a strategy which a teacher applies in a teaching-learning process. It is a systematic process of deciding what and how learners should learn. Teacher decides about the form and content of instruction, such as how much to present, question and discuss; how much material to cover in the allotted time; and how in-depth to make their instruction (Borich, 2007).

Clark (1983) defines planning as **“a basic psychological process in which a person visualizes the future, inventories means and ends, and constructs a framework to guide his or her future action”**. Good planning can provide a teacher with a progressive, structured, and well organized format that can be

used to guide learners toward the accomplishment of specified goals or objectives. A good plan could be considered a blueprint for learning.

Planning for teaching and learning affects not only teachers' instruction but classroom management as well. In a well managed classroom

- (i) learners are deeply engaged with their work; which would be possible if their roles are described and they have a goal as provided in a good lesson plan;
- (ii) learners know what is expected; which would be possible via routinely implemented good lesson plans;
- (iii) there is little wasted time, confusion; which would be possible via effective implementation of a good lesson plan; and
- (iv) the climate of such a classroom would be work-oriented, but relaxed and pleasant; which would be possible via good time management due to effective implementation of a good lesson plan (Wong, 2009).

Every planning of classroom can be classify in three major plans i.e. (i) annual plan (ii) unit plan and (iii) lesson plan. The details of these planning have given below.

9.4.1 Annual Planning

Annual Lesson Plan or Yearly Plan provides an overview of the course in curriculum. It indicates the units to be taught and the time to be devoted. Annual plans contain the units to be taught along with the subtopics and serve as a guideline when preparing the daily lesson plans and the weekly lesson plans that consist of the daily lesson plans. Annual plans also include major curricular and co-curricular activities to be performed, without going into their details, especially if they are to be performed when transiting from one unit to another.

All activities which teacher is going to apply in the whole year as; field trips, experiments, demonstrations are also part of annual plan. Annual Plan should be ready by the beginning of the academic year. Time to be devoted to the learners must be allocated in the plan also. Teachers should also know that what classes they will teach for how many hours and on which days in the beginning of the academic year.

While preparation of the annual lesson plan some important things to be considered by teacher which are as follows:

- The annual plan should be ready by the very beginning of academic year.
- In the annual plans, units should be categorized under specific subject matters, and how much time is needed for each subject matter should also be determined.
- The annual plan should be categorized into unit plans and daily lesson plans.
- When the teachers are going to teach the lesson, the subject matter mentioned in the annual plan should get attention.
- In the prescribed period, it should be determined that in which grades, in which months and how many hours are to be spent for each lesson, weekly.

- The annual lesson plan should include the number of scheduled classes' periods, key learning goals of learners which are supposed to be achieved at the end of the school, major activities and events supporting teaching and learning in the academic year.

9.4.2 Unit Planning

Unit plan is proper selection of learning activities which present the absolute picture of particular unit. It is a systematic arrangement of subject matter.

Unit plan is similar to lesson plan. Its format is almost same as a lesson plan, but covers an entire unit of work, which may span into several days or weeks. Even the unit plan also may include specific objectives and timelines as lesson plan, but the difference is lesson plans are more fluid as they adapt to various needs of learners and their learning style. Dictionary of Education defines unit planning as, "an organization of various activities, experiences and types of learning around a central problem or purpose developed cooperatively by a group of pupils under a teacher leadership involving planning, execution of plans and evaluation of results". A unit plan has five sections, namely, introduction, objectives, contents, hints for teachers and evaluation.

Format for a Unit Plan

Subject/Course:		Unit:		Class:	
<ul style="list-style-type: none"> • Previous Knowledge/Entry behaviour of Learners • Major objectives of the Unit • Overview of the theme of the unit: 					
1	2	3	4		
Sub-Units Teaching topics No. of Periods	Major Teaching points under each topic	Specific objectives of each teaching point	Methods/media/ approach adopted by teachers' and pupils' activities Learning Resources		
<ul style="list-style-type: none"> • References for Pupils • References for Teachers • Evaluation/Assignment 					

Source: School of Education, MES-102: Instruction in Higher Education, Block-1, Instruction in a Systematic Perspective, New Delhi: IGNOU.

For a good unit plan there are some criteria. If any unit plan is fulfilling these criteria it means that plan is meeting with the needs of learners. These criteria have been given below;

- Fit with yearly and term goal.
- Should be organized and in sequence.
- All round development of learners' personality.

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- Needs, capabilities, interest, aptitude and involvement of the learners should be considered.
- Provide a new learning experience; systematic but should be flexible also.
- Prepared on the sound psychological knowledge of the learners.
- Maintain the attention of the learners till the end.
- Related to physical, social and emotional environment of the learners.

9.4.3 Lesson Planning

A teacher should be a good planner and thinker. A lesson plan is a teachers' detailed description of the course of instruction, or 'learning trajectory' for a lesson. Teacher develops a plan to guide the class. It is related to strategy of teacher that how s/he is going to deal her/his learners. A lesson plan is the teacher's guide for running a particular lesson, and it includes the goal, how the goal will be achieved and a way of measuring how well the goal has been achieved.

Lesson plan is a written account of what a teacher would like to have during a certain lesson or class period. It contains the concept or objective, the time period in which teacher has to deliver the chapter, teaching-learning method/procedure, techniques and the instructional materials. A good lesson plan includes the timeline of classes such as when does it begin and how long it takes to cover a subject; instructional materials and pedagogical methods to be used to achieve the learning objectives; how to connect the previously taught content with the current one, practical examples from daily life, etc. It should also be noted that lesson plans may be revised based on the needs that arise.

Teacher should adopt several strategies before writing the lesson-plans. Before writing, teacher should be aware of the learning styles and level of learners. Teacher should try to answer these questions as; what do I want all learners to know and be able to do at the end of this lesson, what will I do to cause this learning to happen, what will learners do to facilitate this learning, how will I assess to find out if this learning happens and what will I do for those who show through assessment that the learning did not take place? Answers of these questions help teacher in writing-up an effective lesson plan.

As per answers, teacher should prepare her/his lesson plan. According to Richards (1998), a lesson plan should address the following:

- Concepts to be taught and objectives to be achieved.
- Time blocks, e.g., approximate time expected to be devoted to the lecture.
- Procedures to be used for instructional design.
- Materials needed both for the learner and the teacher.
- Independent practices or learner time on task.
- Evaluation, applications, and learner understanding, e.g. main questions to be asked by the teacher to check learner understanding.

The model recommended by Tyler, (1949) for effective planning should have;

1. Specific objectives
2. Selection of learning activities
3. Organization of learning activities
4. Specific evaluation procedures

For a good lesson plan McCutcheon (1980) says; a successful lesson plan provides for each class to have a focus; each minute of the class and role of learners are planned; lecture is designed to engage class making the learners active participants; important points are repeated multiple times within a period and throughout the semester; and how new class material relates to earlier material are pointed out building a foundation for learners' learning.

Format for a Lesson/Topic Plan

Subject:		Target Group:		
Topic:				
1. Entry behaviour				
2. General objectives of the Topic				
3. Methods and Media				
4. Introduction				
5. Presentation				
Teaching points in sequence	Specific objectives in behavioural terms	Learning Experience		Partial Evaluation
		Teacher's Activities	Pupil's Activities	
6. Recapitulation/revision/evaluation				
7. Home assignment				
8. Blackboard work plan				

Source: *School of Education, MES-102: Instruction in Higher Education, Block-1, Instruction in a Systemetic Perspective, New Delhi: IGNOU.*

A teacher should keep these several important things in his mind before preparation of any lesson plan.

- a) Each learner is different from other learners so her/his educational needs are also different. Because of this difference their interests, needs, and skills also differ from each other. So teacher should not expect the same learning performances and behaviour patterns from every learner.
- b) Instructional materials to be mentioned in the lesson plan must consist of reasonable items.
- c) Teacher should recognize the parents and neighbourhood of the school and take advantage of such factors when preparing the lesson plan.

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- d) Teacher should act as he/she is the leader of the class; however should listen to the learners as well.
- e) Teacher should encourage the learners to work individually; but should not overload the learners with too much homework.
- f) Lesson plan should also include a backup plan explaining how the parts of the lesson plan, which cannot be realized, can be made up for.
- g) Lesson plan must be prepared based on the intellectual level of learners.
- h) Lesson plan must be flexible enough and not too strict.
- i) Lesson plan should not be too short or too long.
- j) Lesson plan should serve as guidelines for the teachers.
- k) Title of the course and units, allocated time for each activity, instructional methods, and instructional materials need to be mentioned in the daily lesson plans.
- l) Lesson plans serve as proofs that the teacher had implemented the activities mentioned within the daily lesson plan.
- m) The plan for a field trip or for an experiment may be included in the daily lesson plan or attached as a supplemental document.

9.5 BEHAVIOURIST LESSON PLANNING

Behaviourism focuses on how any external stimulus/environment directs/effects/changes the behaviour of an individual. A behaviouristic perspective sees all behaviours of an individual as a stimulus-response relationship, including learning and classroom engagement. Conditioning is a key word of behaviouristic approach. This term for learning is based on what the individual does in response to a specific object, event, or stimulus. Pavlov, Skinner, Watson, Thorndike are pioneer psychologists of behaviourism. According to their theories, in behaviourism, learning of an individual is directed by some external stimulus and feedback. These are given below;

- Identify the desired behaviours: Explain exactly what is expected, what you want to see.
- Identify the consequences, both negative and positive. This enables the learner to know what to expect from you.
- Establish the rules, the consequences, and the rewards for each behaviour

For the development of behaviouristic lesson plan, usually we follow eight steps. These steps are as follows;

1. **First step is Purpose or Objective.** Purpose/objective is related to particular chapter that learners are going to learn, why they are going to learn that particular chapter and which type of behavioural changes (cognitive, affective and psychomotor) are going to occur after the lesson. In simple language it can be called as learning outcomes.
2. **Anticipatory Set (Focus):** The next step is related to how successfully a teacher is going to acquire the attention of learners for the lesson. It is a

short activity or prompt that focuses the attention of learners before the lesson begins. In a simple language we call it introduction. A teacher may ask some questions related to lesson, can give some examples, can tell a story, or can write some problems on the blackboard.

3. **Input:** The third step is input. In input teacher imparts vocabulary, skills, models, theories, concepts what learners should know in order to be successfully placed in the sequence of the lesson.
4. **Modelling:** At this level teacher shows a graphic form or demonstrates to his learners. It is related to the examples used by the teacher throughout the lesson and that behaviour what a teacher wishes learners to imitate.
5. **Guided Practice:** Here teacher leads his learners through the steps essential to perform/get the skill by hearing, looking and doing. Here learners do some activities. These activities may be individual or group; some class work or field work.
6. **Checking for Understanding:** At this level teacher tries to check the understanding of concepts, learners have acquired during the transaction of lesson. It is sequence of the lesson. Here teacher uses variety of questions to evaluate their level of acquisition.
7. **Independent Practice:** In seventh step learners practice on their own. Here learners work on own such as presentations, homework, etc. Teacher uses this to verify progress or justify remediation or enrichment.
8. **Closure:** It is related to review of the lesson. Here teacher asks some assessment questions and tells what they are going to learn next.

9.5.1 Criticism of Behaviourist Lesson Planning

Behavioural theories do not account for free will and internal influences such as moods, thoughts, and feelings.

- Behaviourism doesn't take into account important internal processes that take place in the mind.
- Language acquisition was one type of learning. Skinner's learning theory cannot account for.
- There are many instances of learning that occurs without the use of reinforcements or punishments.
- People and animals are able to adapt their behaviour when new information is introduced, even if a previous behaviour pattern has been established through reinforcement.
- Behaviourists focus on the target, desirable behaviour that is the product. They fail to explain how humans learn, the process through which the learning takes place.
- For a behaviourist what occurs between the stimulus and the response is of little importance. The very meaning of the learning process is banned from any scientific analysis in the behaviouristic approach.
- It is not appropriate for higher classes.
- It is appropriate for small classes, not for large classes.

Activity 2

Select a topic of your own choice and prepare a lesson plan according to behaviourist and compare it with traditional lesson plan.

Check Your Progress

Note: a) Write your answers in the space given below:
 b) Compare your answers with those given at the end of the Unit.

Mark these statements as true or false.

- | | |
|--|------------|
| 4. A lesson plan does not necessarily reflect positive expectations for learner success. | True/False |
| 5. The behaviourist approach takes the nurture side of the nature-nurture debate. | True/False |
| 6. Selection of learning activities is not the part of planning. | True/False |
| 7. Closure is related to review of the lesson. | True/False |
| 8. The behaviourist approach is deterministic. | True/False |

9.6 ALTERNATIVE APPROACH TO PLANNING

9.6.1 Concept Mapping as a Technique Strategy for Planning

Concept maps are spatial or graphical displays that represent relationship between concepts and sub concepts. In concept map labeled nodes represent concepts and lines or arcs represent relationship between pairs of concepts.

According Novak and Canas (2008), “**Concept maps are graphical tools for organizing and representing knowledge. They include concepts, usually enclosed in circles or boxes of some type, and relationships between concepts indicated by a connecting line linking two concepts. Words on the line referred to as linking words or linking phrases, specify the relationship between the two concepts.**”

Further, they clarifies *concept as a perceived regularity in events or objects, or records of events or objects, designated by a label* and *Propositions are statements about some object or event in the universe, either naturally occurring or constructed. Propositions contain two or more concepts connected using linking words or phrases to form a meaningful statement.* (Novak and Canas, 2008)

Concept maps identify the way individual think, and see relationships between topics. It is representations of cognitive structures depicting the hierarchies and the interconnections of concepts involved in a discipline or a sub discipline.

It helps the learners to

- understand the connections between the ideas they already possess,
- connect new ideas to their previous knowledge and
- organize ideas in logical order.
- An example of concept map is as follows.

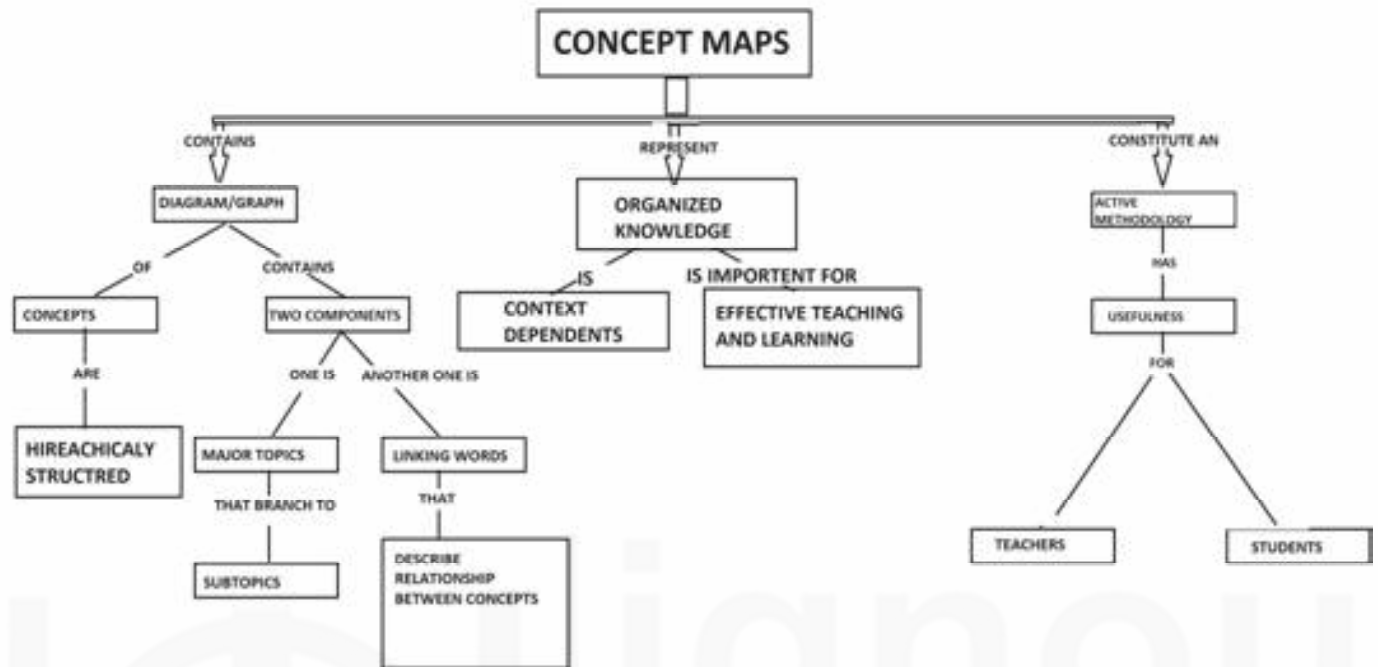


Figure 9.1: Concept Map, as proposed by Novak

According to Joseph Novak, who developed the idea in the 1970's, concept maps are tools for organizing and representing knowledge in hierarchical structure. Novak conceptualized his work from the Ausubel's learning theory. Ausubel stressed the importance of prior knowledge in learning new concepts. Idea of Concept maps has been influenced by the learning movement of constructivism. Constructivists hold that learners actively construct knowledge based on their previous knowledge. Concept map allows teacher to show how different pieces of information relate to one another. As concept maps creating a visual map of knowledge, it is a good way to identify key concepts in lectures and readings. It is a valuable tool for educators in assessing the structure of learner conceptions. It is widely used to promote meaningful learning in various disciplines and in different contexts. Ragisha and Gafoor (2014) *Concept mapping allows understanding the relationships between concepts in the form of propositions by creating a visual map of the connections. From a pedagogical perspective, this allows to see the connections between ideas already present, to connect new ideas to knowledge already gained and to organize ideas in a logical structure, and to provide flexibility to the existing knowledge structure to permit future information or viewpoints to be included.*

Therefore it can be concluded that concept map helps the teacher as well as taught in following ways:

- Concept map increase the potential of teacher to formulate the multiple ways of constructing meaning for diverse group of learners
- It provides opportunities for teachers to know how learners may see or organize knowledge differently.

Teaching - Learning Process

- Concepts map help in selecting appropriate instructional materials.
- Mapping help to develop well integrated, continuous and logically sequenced in content.
- With the help of concepts map teacher can design the content of the study that is relevant, meaningful and interesting.
- Concept map helps in holistic style of learning.
- Concept mapping helps to reduce abstract knowledge to concrete diagrammatic representation.

Concept maps are widely used instructional and teaching learning tools. It helps teachers and learner to identify and visually represent their views and knowledge. Teachers can also use concept map to identify learner's previous knowledge or misconceptions as it provide a graphical summary of what learners have learned.

Birbili (2006) quotes that *Concept maps can also be used to organize teaching or the entire curriculum. As a planning tool, they can help teachers plan, structure, and sequence the content of their teaching. As they create a map of what they want to teach, teachers can see how different themes and topics are linked, so continuity of experience is ensured, and develop units and activities that integrate different subjects.* They can use map for their own understanding of the concept and then use it to organize the knowledge and information that they will present to learners as well. Concept maps can be used for the purpose of both formative and summative evaluation. Concept maps can facilitate teaching and learning in several ways. It can help both teachers and learners to identify the key points of concepts and principles. It provides visual road map to connect meanings of concepts in propositions. It is an effective tool which makes structure of knowledge explicit and accessible.

Activity 3

Prepare a concept map of any topic of your own choice and use it in your classroom practices.

Check Your Progress

Fill in the blanks.

9. In concept map labeled nodes represent..... and lines or arcs representbetween pairs of concepts.
10. developed the idea of concept maps
11. Concept maps are tools for organizing and representing knowledge in.....
12. Concept map helps instyle of learning.
13. Concept map makes learning.....
14. Concept maps aredisplays that represent relationship between concepts and sub concepts.

9.7 CONSTRUCTIVIST LESSON PLANNING (5-E APPROACH)

The Swiss psychologist Jean Piaget is the originator of Constructivist school of thought in the 20th century. It is a learning theory that argues that individual constructs knowledge in unique ways based on his/her prior knowledge and experience. The theory suggests that people construct their own knowledge and understanding from an interaction between their own experiences and ideas. The role of teachers is very important with in constructivist classroom. Teacher acts as a facilitator whose role is to help learners in constructing knowledge. It believes that teacher must not only equip learners with information but teacher must begin with asking and facilitating so that learners come to conclusions on their own. Teacher must create learning experiences continually in conversation with learners that is as per needs of the learners.

The **5 E's (Engage, Explore, Explain, Elaborate and Evaluate) model** gets its name from the capital letters of each of its level of sequences is an instructional model based on the Constructivist theory of learning. The 5 E's can be used with learners of all ages. ATES (2013) analyzed that *“Learners are prevented to memorize the subject with this model. It is aimed that learners take active part in various activities such as brain-storming, question and answer, drama, painting, cooperative learning, teamwork, presentation skills, discussion.”* This model allows teachers and learners to use and build on prior knowledge and experience, to construct meaning, to continually assess their understanding of a concept and create new knowledge. 5E Model not only implicates learners into activity at every stage in consideration of the information given to them but also encourages them to create their own concepts (Martin, 2000 as quoted by **ATES, 2013**). The five phases of “Constructivist Learning Approach” are as follows:

Engage: This is the first phase from where the process of 5 E's starts. Here, the learners first encounter and identify the instructional task and make connections between past and present learning experiences. It includes attracting learners' interest to the concept, revealing learners' prior knowledge, making learners aware of their own knowledge and querying them about the concept. Teachers can ask a question, define a problem, show a surprising event and act out a problematic situation to engage the learners and focus them on the instructional tasks. Here the primary teacher's task is to grab the learner's attention. This is a warm up phase in which learners become ready to learn. In short, we can say that an “engage” activity should do the following two tasks:

1. Make connections between prior and present learning experiences
2. Predict activities and focus learners' thinking so that learners become mentally engaged in the concept, skill and process to be learned.

Explore: In the Exploration stage, learners have the opportunity to get directly involved with phenomena and materials by actively exploring their environment and manipulating materials. It provides learners with a common base of experiences. By involving themselves in activities learners develop a grounding of experience with the concepts. The teacher acts as a facilitator, providing materials and guiding the learners' focus. At this stage, learners work together in teams, therefore, build a base of common experience which helps them communicate and share experiences. Learners test their own knowledge by observing and gaining experiences about the phenomena.

Explain: Explain is the point at which learners begin to put their experiences into a communicable form. It helps learners explain the phenomena they have been exploring. This is the most active phase of teaching and it includes learners to share and discuss their own experiences with each other. They get opportunities to put their conceptual understanding or to demonstrate new skills or behaviours. It provides opportunities to introduce formal terms, definitions, and explanations for concepts, processes and skills. Explanations from teachers provide standard language for concepts. Introducing learners with formal nomenclatures of the concepts after having direct experience is far more meaningful than it was before that experience. Here, Learners compare their prior knowledge with observations and explain the relationship between them. Communication occurs between peers and the facilitator as well as within the learner. Learners support each other's understanding as they articulate their observations, questions and hypotheses. Works created by learners in writing, drawing, video, recordings, etc. provide recorded evidence of their development, progress and growth.

Elaborate: In elaborate stage, learners expand the learned concept and make connections to other related concepts, and apply their knowledge and understandings to the real world. At this phase, learners practice skills and behaviours by expanding their understanding of the concept/phenomena. Learners develop deeper and broader understanding of major concepts and refine their skills to apply the knowledge to real world events. Connections between knowledge formed at this stage, often, lead to further inquiry and new understandings.

Evaluate: This phase of the 5 E's is an on going diagnostic process. It allows teachers to determine if learners have attained understanding of concepts and knowledge. It also encourages learners to assess their understanding and abilities. Teacher observation, structured by checklists, learner interviews, portfolios designed with specific purposes, project and problem-based learning products are some tools of evaluation. Communications between learners and teachers provide concrete evidence of learning. These evidences of learning form a base to guide teacher in further lesson planning and directs for modification and change of direction, evaluate learners knowledge of the concept they have learned at the previous four stages and make an extraction. And, eventually, they assess their own improvement. Constructivist philosophy views evaluation as a continuous process, so learning forms a kind of cyclical structure. The learning process is open-ended and open to change. There is an on going loop where questions lead to answers but more questions and instruction is driven by both predetermined lesson design and the inquiry process. Loop continues as it is shown in figure 9.2.



Figure 9.2: 5-E Approach of Lesson Planning

Example of Lesson Plan using 5-E Approach

Subject: Social Science
Class: 9 th
Topic: Population Policy
<p>Objectives:</p> <p>Cognitive:</p> <ol style="list-style-type: none"> Learners will be able to define population. Learners will be able to name and identify the problems caused by overpopulation Learners will be able to explain the population rate of the country Learners will be able to explain relationship between the population rate of a country by age group and the level of development. <p>Psychomotor:</p> <ol style="list-style-type: none"> Learners will be able to construct a model depicting the social and economic problems caused by overpopulation. Learners will be able to classify the countries according to population rate and present with diagrams with 90% accuracy. <p>Affective :</p> <ol style="list-style-type: none"> Learners will demonstrate perseverance as they attempt to construct a model Learners will display open-mindedness as they work with their peers to work on population policy.
Material: Different types of charts
The activities about Population Policy (5 E Approach):
<p>Engage</p> <p>Lesson can be started with the following questions :</p> <p>Do you know the population of our country?</p> <p>What do you think about population in which you live?</p> <p>What kind of advantages or disadvantages are due to this population?</p> <p>Are there any crowded cities in India?</p> <p>What sort of problems are there?</p> <p>Do you have any experience about it?</p> <p>What kind of problems would there be if our country didn't have enough population?</p> <p>Various visuals will be used supporting the questions, learners are allowed to raise attention and their current knowledge is assessed.</p>

Explore

Learners will be divided into groups and each group is allowed to choose a topic of interest. Examples of the topics are as follows:

Topic 1: Should there be any law to limit the population growth of a country?

Topic 2: What social and economic problems do the countries have due to overpopulation?

Topic 3: What social and economic problems do the countries have due to under population?

Topic 4: What kind of relationship is there between the population rate of a country by age group and the level of development?

Topic 5: Dramatize one or more possible problems of a country with overpopulation.

Topic 6: Dramatize one or more possible problems of a country whose young population rate decreases fast.

Explanation:

One representative of each group will share the results one by one. Teacher facilitates, explains and completes the lack of knowledge of learners if it is necessary. Teacher give information about the concept of "Population Policy" after the activities. Therefore, learners are allowed to understand what "Population Policy" is.

Elaborate

Learners are provided environment of discussion regarding Population Policy to use their new knowledge and explore its implications. Learners will be divided into two groups and ask question "Is it sensible to practice Population Policy in order to increase or decrease population in terms of human rights?" Ask yes or no. At the end of the discussion both teacher and learner will summarize the topic.

Evaluation:

Following questions will be used

What is Population Policy?

What is the purpose of population Policy?

What are the advantages and disadvantages of Population Policy?

What are the problems of overpopulation in a country?

What are the problems of under population in a country?

Check Your Progress

Fill in the Blanks.

15. is the originator of Constructivist school of thought.
16. 5 E's stands for
17. Constructivist philosophy view evaluation as a process.
18.activity make connections between prior and present learning experiences.
19. provides opportunities for teachers to introduce formal terms.
20. In stage....., the learners expand the learned concept.

9.8 LET US SUM UP

This Unit has presented several aspects of planning teaching and learning. Planning is a vital component of the teaching learning process which provides a complete structure and context for both teacher and learners to accomplish the educational goals. Instructional planning aims to organize instructional activities effectively. Some considerations for instructional planning are positive school environment, physical environment, psychological environment, diverse group of learners, content, etc.

Effective teaching is a planned activity. Teacher plans the content of instruction, selects teaching materials, designs the learning activities, plans the pacing and allocation of instruction time etc. Every planning of classroom can be classify in three major plans i.e. (i) annual plan (ii) unit plan and (iii) lesson plan. Unit has explained use of concept map to identify learner's previous knowledge or misconceptions as it provide a graphical summary of what learners have learned. Concept maps can facilitate teaching and learning in several ways. Teacher acts as a facilitator whose role is to aid the learners in constructing knowledge. The 5 E's (Engage, Explore, Explain, Elaborate and Evaluate) model gets its name from the capital letters of each of its level of sequences of an instructional model based on the Constructivist theory of learning.

9.9 UNIT END EXERCISES

- 1) What is Instructional Planning? What are the various considerations for Instructional Planning in Classroom? Why are these considerations important for Instructional Planning?
- 2) Discuss the Psychological Environment.
- 3) As a teacher what points you will emphasis during your lesson planning?
- 4) How can you create a positive environment of your school and classroom?

- 5) Explain constructivist approach of planning.
- 6) Describe the concept mapping as a technique for content & pedagogical planning.
- 7) Select the topic of your own choice and prepare a plan using the 5-E approach

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9.11 ANSWERS TO CHECK YOUR PROGRESS

1. A positive school environment must have appropriate facilities, well equipped and managed classrooms, good peer support, health facilities provided by school and appropriate policies and practices of discipline.
2. Physical environment of school refers to the material and tangible conditions of school. It includes Natural environment (air, noise, water, greenspace etc), Built environment (building, infrastructures, roads, transport systems etc) and Socio-economic and Cultural environment (the social and economic characteristics of the societies and communities in which the school is placed).
3. Diverse learner learners include learners from socially, economically, culturally, and linguistically diverse families, communities and learners of different abilities.
4. False
5. True
6. False
7. True

Teaching - Learning Process

8. True
9. Concepts, relationship
10. Joseph Novak,
11. Hierarchical structure
12. holistic
13. visible
14. spatial or graphical
15. Jean Piaget
16. Engage, Explore, Explain, Elaborate and Evaluate
17. continuous
18. engage
19. explain
20. elaborate

