Induction Manual

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Preface

The Ethiopian is currently working hard to improve the quality of higher education teaching and learning processes. To this end, the Ministry has been playing a key role in facilitating opportunities for university instructors to participate in developing training manuals, up-to-date curricula, and different working guidelines.

In the Ethiopian context, it is quite obvious that most novice instructors do not have the necessary pedagogical science training prior to their employment. Moreover, universities do not have uniform procedures in running induction programs and even in some cases there is no trend of offering induction training at all. Even those which usual offer the training vary in areas of emphasis, components of the training, duration of training, and the likes.

Thus, this induction training manual is prepared with the aim of:

- Establishing similar standard of provision for induction training for new entrant instructors in both government and private,
- Achieving the aspired quality of education through the provision of pedagogical science knowledge and skills to all instructors in general and for incoming instructors in particular,
- Assisting instructors acquire the necessary pedagogical science knowledge, skills, and values to effectively teach their respective subject(s). To achieve these important inputs, it is mandatory for all entrant instructors of both public and private to pursue this induction training program to get full right of an instructor's status, and
- Familiarizing new entrants of all of the country with technology-assisted instruction in order to help them to catchup themselves with the dynamic nature of the teaching and process due to the swift change of science and technology. Thus, cognizant of all the above rationales, all trainees are advised to actively participate in this induction training program for 20 training days that would be organized and offered by their respective HEI.

Induction Manual Description

This induction manual is prepared with the intention of equipping the instructors of with the necessary pedagogical knowledge and skills. It is also designed in a way that instructors are assumed to grasp the theoretical and practical aspects of effective teaching in . The authors assume that the trainees are new to the pedagogical principles, practices,

and ethical dimensions, and the material is supposed to serve as a reference in their professional career.

The manual incorporates the basic knowledge, skills and values that all instructors are expected to possess. It mainly emphasizes on professionalism and professional ethics, teaching and learning in Higher Education, active learning methods, classroom management, educational assessment and evaluation, instructional planning, and technology-assisted learning. In addition, the trainees are anticipated to get clear information about ETA, the institution which they have joined, and policies, proclamations, guidelines and other working documents of .

Module objectives

After completing this training, instructors will be able to:

- ✓ Get awareness about the working system of their respective QC
- ✓ Recognize professionalism and professional ethics of teaching profession in .
- ✓ Understand the nature of quality teaching and learning in
- ✓ Apply active learning methods in their teaching practices.
- ✓ Value the roles of classroom management in bringing effective teaching-learning process.
- ✓ Conduct effective educational assessment and evaluation.
- ✓ Develop a plan for instruction
- ✓ Become familiar with different technologies related with instruction
- ✓ Appreciate the roles of induction training in improving the quality of teaching and learning processes in .

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Unit One: Professionalism, Professional Ethics and diversity management

Dear trainee, this chapter deals with the conceptualization of professionalism, professional ethics, and inclusive education. Professionalism and professional ethics are very important for increasing efficiency and effectiveness in a given profession. By the same token, addressing issues of multicultural or inclusive education is also important especially in the teacher education programs of countries characterized by diversity.

Learning Objectives

At the end of this unit, trainees will be able to:

- Describe the term professionalism.
- List down the criteria to be fulfilled by a professional teacher.
- Appreciate the importance of professional ethics in improving the quality of education.
- Write down the core professional ethics of teaching profession.
- Elucidate the notion inclusiveness.
- Designate the concept gender.

1.1. Professionalism

Activity 1:

- What is your understanding of the term professionalism?
- What do you think are the criteria to be fulfilled by a given person to be called a professional?
- What do you think are the core professional ethics in teaching profession?

The term 'professionalism' originally applied to vows of a religious order. However, around 1675, the term had been started to be used in fields such as divinity, law, and medicine. In addition, it was applied in military profession around 1675. This, in turn, implies the fact that the term profession has a long history.

Professionalism is not just about adhering to codes of practice, rules and laws, but also having your individual ethical and moral beliefs consistent with societal expectation. Professionalism can take many forms depending on the nature of what you are doing.

Professionalism encompasses a number of attributes. Therefore, to improve his/her professional identity, each professional is expected to improve in each of the following areas.

A. Specialized knowledge

Concerning this attribute, a professional should:

- Exhibit specialized knowledge.
- Demonstrate a deep personal commitment to develop and improve his/her skills,
- Build expertise and to stay up-to-date,
- Have the qualifications and certifications that can serve as the foundations of the required knowledge and skills,
- Continue to show success in their respective fields of specialization, and Continue to deliver the best service to his/her customer(s).

B. Competency

With regard to this attribute, a professional is expected to:

- Get the job well done,
- Keep his/her promises even under difficult circumstances, and
- Doesn't make excuses, but focuses on finding solutions.
- Make a commitment to build expertise and to stay up-to-date with his/her area of specialization.

C. Honesty and integrity

With respect to this characteristics, a professional must be able to:

- Exhibit qualities such as honesty and integrity,
- Keep his/her word, and he/she should be trusted implicitly,
- Never compromise his/her values, and will do the right thing, even when it means taking a harder risk,

Demonstrate basic ethical standards such as honesty, integrity, maintaining confidentiality, and

Demonstrate keen positive attitude towards his/her professional colleagues and clients.

D. Open-mindedness

Concerning this dimension, a professional should become:

- A person who is ready to learn from others.
- A person who is willing to share opinions to others.
- Ready for accepting feedbacks from appropriate sources.

E. Accountability

With regard to this attribute, professionals should be able to:

- Make themselves accountable for their thoughts, words and actions, especially when they commit a mistake.
- Associate this personal accountability with honesty and integrity,
- Demonstrate high level of punctuality, and
- Produce high quality work.

F. Self-regulation

This attribute calls for a professional to be able to:

- Show genuine professional qualities such as respecting the people around them irrespective of their role or situation.
- Honor your commitments,
- Refrain from making excuses most of the time,
- Make good preparation. In advance planning, timeliness, and attention are the true quality of a professional,
- Exhibit a high degree of emotional intelligence (ei) by considering the emotions and needs of others, and
- Know how to listen actively and observe what's happening around them.

G. Good appearance

With regard to this attribute, a true professional should be able to:

- Choose proper dressing, meaning they don't show up to work with poor dressing style. In other words, he/she dresses appropriately for the situation at hand,
- He/she tends to use natural hair styles and colors,
- Demonstrate modest actions in front of people.

Activity 2:

- **What other qualities do you think a true professional should exhibit?**

1.2. Professional Ethics

Ethics is a cornerstone for any profession. It is the key to the success of a given organization. If an organization is able to establish an agreed upon and relevant code of ethics, the chances for growth and development are quite high and vice versa. In order to consolidate your conceptualization of the concept professional ethics, you're requested to answer the following reflective activities.

Activity 3:

- What is your understanding of the phrase 'professional ethics'?
- What do you think are the core teachers' professional ethics?

Professional Ethics

Some points regarding professional ethics.

- Are principles that govern the behavior of a person or group in an organization.
- Are rules that guide how a person should act towards other people and institutions in a given setting.
  Are personal and corporate rules that govern behavior within the context of a particular profession.
  Are those attributes that apply to a specific profession and will vary based on the specific knowledge, skills and duties of those in the role.

1.3. Teachers' Code of Ethics

Teachers are the lifeblood of any education system. Teachers can make or break students particularly in low-income countries. Nothing can substitute a well-trained, ethical, and committed teacher. Teachers are on the forefront in terms of ensuring the quality of education.

Hence, in order for teachers to fulfil their professional responsibilities of effectively molding human mind, they are expected to demonstrate some fundamental code of conducts related to their profession. In this regard, for teachers to effectively educate citizens, amongst other things, they:

- Must exhibit good mastery of the subject(s) they teach,
- Should possess sound knowledge of pedagogy and andragogy,
- Demonstrate rigorous code of conduct and professional ethics.

Of course, different authors may define teachers' code of conduct in different ways. A code of conduct is a set of written guidelines, produced by public authorities or professional organizations, which details the set of recognized ethical norms (or values) and professional standards of conduct to which all members of a profession must adhere. When it comes to teachers' professional ethics, they are basic principles that guide teachers' behaviors. In addition, teachers' ethics are statements that describe what is acceptable conduct for teachers. Besides, teachers' ethics are indicators that reveal what teachers should or shouldn't do.

Dimensions of Teachers' Code of Conduct and Professional Ethics

The ethical conducts of teachers include: teaching profession, students, colleagues, and nearby community.

Ethical Conduct towards Teaching Profession

- Demonstrating unconditional love towards teaching profession,
- Speak up positive aspects of the profession,
- Being reflective practitioners, Willingly engage in Continuous Professional Development and become lifelong learners,
- Having keen understanding about the essence 'learning is a lifetime journey'.

  Actively engage in research activities.
- Actively engage in career path i.e., being able to move along the ladder:

  Assistant lecturer → lecturer → Assistant Professor→ Associate Professor→ Professor.

- Free from any form of corruption in connection to the teaching and learning process.
- Having a clearly understanding about the unique characteristics of teaching profession. In this regard, teaching profession is:
  - The mother of all other professions,
  - The noblest profession,
  - The oldest profession ever, The largest profession, and A typical social service.

Ethical Conduct towards Students

- Treating all students without any partiality.
- Believing in multiculturalism as he/she serves in Ethiopia which is a home of diversity i.e., respecting the language, culture, values, religion, etc., of all students without any partiality.
- Preparing course /session plans by considering the needs of students.
- Striving to meet the emotional, social, and intellectual needs of each student.
- Utilizing variety of teaching resources in order to address the learning styles of students (visual learners, auditory learners, and kinesthetic).
- Addressing the three domains of learning (cognitive, affective and psychomotor domains).
- Being role model (dressing, hair style, neatness, talk, act, etc.,) Being free from ethnocentric or egoistic bias.
- Showing openness to diversity and diverse way of life.

Ethical Conduct towards Colleagues

- Willing to share best practices with colleagues.
- Willing to share available resources with colleagues.
  Making all possible effort to support colleagues especially beginner teachers to effectively manage their duties.
  Never speak negatively about other colleagues in front of students, parents, or other colleagues.
- Should respect to the differences in philosophical outlooks among colleagues.
- Free from any jealous acts against colleagues.

Ethical Conduct towards the Nearby Community

- Should demonstrate genuine respect for the language, culture, religion, values, etc., of the nearby community.
- Should treat the nearby people with respect and courtesy.
- Should strive to be a positive contributing member to the nearby community in the form of in community services.
- Being role model in the community.

1.4. Diversity Management

This sub-unit sheds light on one of the cross-cutting educational issues particularly in relation to diversity and its management. In this regard, great attention is given to helping university-based academicians and beyond to have a clear understanding about the concept 'diversity' and its management strategies. This is because diversity is a fact of life in the Ethiopian context and at the same time Ethiopian universities are the places where students who are from all regional states of the country live and learn together.

As a result, the university communities in general and instructors in particular should have clear awareness about the existing heterogeneity across the country's universities and learn how to effectively manage this diversity. As part of this effort, emphasis is given to the how of enhancing the learning outcomes of students who join universities of the country from different backgrounds. By the same token, attention is given to strategies helpful for fostering cohesion among the diverse university students through enhancing cross-cultural understanding and peaceful co-existence.

1.4.1. Inclusiveness

Activity 4:

- What is your understanding about the concept 'inclusiveness'?
- What is the relationship between inclusive education and special needs education?
- Why are we concerned about the essence of inclusive education in the Ethiopian context?

Ethiopian community contains an amalgamation of diverse ethno-cultural and religious groups. In order to have peaceful coexistence via enhancing mutual understanding among the Ethiopian diverse societies, these various ethnic and cultural groups should minimize prejudice and ethnocentric behaviors, and move towards respecting each other's cultures and languages. As part of this effort, they should recognize the

similarities and differences among themselves and others, and try to develop positive intercultural and inter-ethnic relations (Dejene, 2017; Egne,2017; Egne, 2014a; Semela, 2012).

In this venture, multicultural education or inclusive education has a key role to play in terms of creating awareness and tolerance among cultural groups so that all human beings regardless of their ethnic background, race, gender, culture, language, religion, economic status, intellectual capacity, health conditions, and place of origin get equal opportunities and thereby enjoy a decent and democratic life. Hence, the notion of 'inclusiveness' cannot be restricted to 'special needs education' as it is a kind of education that entertains all forms of diversity in a fair and free manner.

1.3.2 Gender Issue

Activity 5:

- What is your understanding of the concept gender?
- What is the difference between gender and sex?
- How do you think gender equality and gender equity differ?
- What roles instructors can play in addressing gender DTDS, STEM?

1.5. Teachers' Role in Peace Building

Activity 6:

- What roles can university instructors play in peace building process in the Ethiopian context?
- How can they enhance peace building process apart from engaging in their conventional duties and responsibilities?

Ethiopian is a multiethnic, multicultural, and multilingual state where more than 80 different ethnic groups live together. In such diversity-oriented country, it is mandatory for teachers to play key roles in significantly contributing to the efforts made to ensure sustainable peace building processes at different levels.

In addition, instructors should contribute to the peace building process through conducting different research works on the causes of unrest in the country and suggesting context-based solutions for the problems identified. Furthermore, instructors should present their peacemaking-based research works on different research conferences and disseminate the findings and their respective recommendations to the general public and beyond.

Similarly, instructors are expected to make peace building comments and suggestions on different social media such as TV set, radio, meetings broadcasted via TV or videos, tele video conferences, and the likes. Moreover, the instructors should teach their students to use social media such as Facebook, YouTube, WhatsApp, Telegram Messenger, Twitter, and the likes in a way in which the media support their learning opportunities rather than for igniting unrest and/or for examination cheating purposes.

In addition, instructors are expected to refrain from using expressions that can create turmoil among students and other members of the community. In this regard, the instructors should not allow their socio-cultural identities to interfere their day-to-day teaching activities. Similarly, the instructors should not impose their own religious belief, political outlooks, philosophy of life etc., on the students.

Besides, Ethiopian universities are the miniature communities of the country's large societies. Therefore, instructors who teach in such multicultural settings do have professional and moral obligations in terms of enhancing mutual understanding and tolerance among the diverse students through the application of culturally responsive pedagogy. This culturally responsive pedagogy consists of three dimensions: institutional, personal, and instructional dimensions.

The institutional dimension reflects the administration and its policies, and values that welcome as well as promote issues of diversity. The personal dimension refers to the cognitive and emotional processes in which teachers and students must engage into become culturally responsive. The instructional dimension includes materials, strategies and activities that form the basis of instruction. In a nutshell, all the three dimensions must significantly interact

with each other in the teaching and learning process and are critical to understanding the effectiveness of culturally responsive pedagogy.

Furthermore, teachers are assumed to be guardians who strive to ensure students' emotional, social, intellectual, and physical development regardless of their differences in terms of ethnicity, culture, language, gender, religion, political outlooks, and the likes (Egne, 2017). In so doing, instructors should not be influenced by their own identity markers by taking neutral position in their day-today professional exercise.

In addition, university instructors can apply the five basic dimensions of inclusive or multicultural education in the attempts they make to build peace and order in their respective university compound. The fundamental dimensions are: content integration, knowledge construction, equity pedagogy, prejudice reduction, and empowering school culture and social structures.
Content integration deals with the extent to which teachers use examples and contents from a variety of cultural groups to illustrate key concepts, principles, generalizations, and theories in their respective subject area or discipline (Cole and Zhou, 2014; Schoorman and Bogotch, 2010).
The central intention of applying this dimension is to incorporate the voices, experiences, and perspectives of particularly underserviced groups into the education system in a fair way. This could be interpreted in this material in terms of addressing contents that address the diverse nature of the Ethiopian society in the policies, curricula, and pedagogy of the education system of the country in an integrated manner.

The second dimension is knowledge construction which emphasizes teaching and learning activities that help students understand, investigate, and determine how the implicit cultural assumptions, frames of reference, perspectives, and bias of researchers and textbook writers influence the ways in which knowledge is constructed (Banks, 2010; Johnson, 2003). This dimension deals with the ways in which teachers and students view and interact with knowledge, helping them to become critical about the legitimacy of the knowledge that they deal within the teaching and learning process. This dimension could be applied in this module through analyzing the extent to which the Ethiopian higher education has been producing students who have the ability and willingness to evaluate

the authenticity as well as the representativeness of the knowledge that they learn in the teaching and learning processes.

The third dimension is equity pedagogy that becomes evident when teachers alter their teaching methods and approaches in ways that facilitate the academic achievement of students from diverse backgrounds (Zirkel, 2008). This may include using a variety of teaching styles and techniques that are consistent with the range of learning styles of various ethno-cultural groups (Banks, 2004). Furthermore, Banks (1995, p. 153) contend that "equity pedagogy is a dynamic instructional process that not only focuses on the identification and use of effective instructional techniques and methods but also on the context in which they are used". This dimension fosters culturally responsive teaching and learning approaches (Gay, 2010) as strategies to improve the academic achievements of all students. In this module, this dimension could be used via analyzing the degree to which Ethiopian higher education system has been enhancing the application of active learning approaches in an effective manner.

The fourth dimension is prejudice reduction in which students are helped to develop positive and democratic intergroup relationships (Banks, 2010; Zirkel, 2008). According to Coloma (2008, p. 33), prejudice reduction targets the intergroup and human relations dimension of multicultural education. Those from the dominant group learn to develop positive attitudes towards others who are different from them, and those who belong to marginalized groups learn to develop more positive feelings towards themselves as well as towards the dominant groups. It also helps students to understand how ethnic identity is influenced by the context of schooling and the attitudes and beliefs of the dominant social groups (Banks, 2010). In this material, this dimension can be applied in the analysis of the extent to which Ethiopian higher education has been fostering the development of positive intergroup relationships among students with diverse backgrounds.

The final dimension is an empowering school culture and social structure which involves restructuring the work culture and organization of the school in order to empower students from diverse backgrounds (Banks, 2006; Johnson, 2003). According to Banks (1995, p. 153), the school cultures and social structures are powerful factors that influence how students learn to perceive themselves. As such, they influence the interaction between educational administrators, teachers and students as well as among students. The application of this dimension in this module can be seen in the analysis of the degree to which the

Ethiopian higher education system has been producing students who incorporate and promote reforms of the work culture and organisations of the different education institutions of the country in order to effectively empower all students that join the educational institutions.

- Every academic staff shall have the right to: (**Article 31)**

  - ✓ Exercise academic freedom based on the national laws; institution's mission, values, rules and regulations;
  - ✓ Take sabbatical leave, be entitled to further education and training for professional development, be promoted and assume new academic rank on the basis of merit subject to rules drawn by the Ministry and internal rules and regulations of the institution;
  - ✓ Enjoy transparent, fair, and equitable administration and system of remuneration and benefits that shall be instituted by government;
  - ✓ Participate in the formulations of institutional direction, plans, internal regulations, and in curricula development and make comments on the quality and appropriateness of the teaching and learning process
  - ✓ Participate on his performance evaluations and be informed on his results and of any records kept in his personal file.
  - ✓ Enjoy campus security for himself and for his personal property and give appropriate service.
  - ✓ Be informed on the plan, development, direction, condition and performance of the institution;
  - ✓ Elect and be elected where election of an academic staff is the norm;
  - ✓ Know disciplinary proceedings against him, provide evidences to support its case, be heard, get a copy of decisions, appeal and seek justice.

- **Responsibilities of Academic Staff**(**Article 31)**

  - ✓ Teach, conduct academic research, render guidance or counseling and community services as per national laws, institutional mission, values and procedures;
  - ✓ Participate in curriculum development, review, and enhancement, and the required professional standard in curriculum delivery;
  - ✓ Council, assist and support students in acquainting themselves with the mission and guiding values of the institution as well as with the objective of higher education;

- ✓ Uphold, respect and practice the objectives of higher education and the guiding values of the institution, and exercise academic freedom with professionalism;
- ✓ Assisting students in need of special support;
- ✓ Devote his full working time to the institution;
- ✓ Refrain from imposing his political views and religious beliefs on his students during teaching learning process;
- ✓ Treat and interact with members of the institution's community by refraining from acts that are contrary to rights enshrined in the constitution;
- ✓ Perform other additional responsibilities that may be provided for by the senate statutes establishing legislation, or memorandum of association of the institution;
- ✓ Academic staff who are medical and health professionals shall have also the responsibility to render health services in the institution's teaching hospital.

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Unit Two: Teaching and Learning in Higher Education

Unit Description

This unit deals with teaching and learning in higher education. It will cover the nature of teaching, indicators of effective teaching, concept of learning, characteristics of learning, factors affecting learning and stages of learning. It will also address various learning theories and their implications for teaching.

Unit Objectives:

At the end of this unit, trainees will be able to:

- ✓ Describe the concept of teaching and learning Identify indicators of effective teaching and learning.
- ✓ State characteristics of learning.
- ✓ Identify the types of learning approach.
- ✓ Apply different theories of learning in their instruction.
- ✓ Appreciate the relevance of learning theories in designing instruction

2.1 Concept of Teaching

Activity 1:

- **What is teaching?**

Our understanding of the concept "teaching" depends on own previous experiences of any sort and it really affects our actual practices as a teacher. Some may conceive teaching as a divorced or independent process from learning. As to such teachers, so far as they make their own preparation, get into the classroom and delivered their lesson in their own preferred way they think as they played their teaching role regardless of students' learning. Some others conceive teaching as it inter-depends with learning and takes into consideration individual differences in students prior to teaching and implement their teaching accordingly. For such teachers, the fundamental question that appears at the

heart of their teaching is "how do students learn and benefit from teaching." The key point here is to see deep into your stand and make the necessary adjustment.

Any form of teaching that did result in no substantial learning or no learning is like a gun shooting that did not hit the target. If your conception towards teaching considers learning as outcomes assimilate it with the fundamental question of teaching; otherwise, you need to accommodate it with the same concern. As a teacher, bear in mind that teaching and learning are two sides of a coin, for a lesson is considered not taught until it has been learned. As a matter of fact there always exist time and conceptual variations, among scholars in the field, teaching does not have one agreed upon definition. Anyway, let us see some of the definitions given to teaching and broaden our frontier of knowledge about the concept.

- Idealist philosophers define teaching as a process of transmitting/imparting knowledge, whereas pragmatists consider teaching as a process of facilitating the individual's learning.
- "Teaching is any form of interpersonal influence aimed at changing the ways in which other persons can or will behave" (Gagne :1963a)
- "Teaching is an interactive process, primarily involving classroom talk, which takes place between teacher and pupils & occurs during certain definable activities"(Amidon & Hunter :1967)
- "Teaching is interpersonal activity directed toward learning by one or more persons" (Klauer 1985)
- "Teaching denotes action undertaken with the intention of bringing about learning in another" (Robertson :1987)

Their variation in defining the concept teaching may be attributed to the difference in the perspectives scholars are advocating. This fact dictates that there is no one outstanding definition that spells out the concept teaching. Rather contemporary educators prefer to describe teaching based on the common attributes suggested by many authorities than defining it. Accordingly, teaching is

- *An activity or action*
- *A process*. It involves a series of actions and decisions of the teacher.
- *An interpersonal activity and/or process*. Interpersonal refers to the fact that teaching involves interactions between a teacher and students as well as among students. Most often the interactions are two-way.

- *Intentional*. There is some purpose or set of purposes for which teaching occurs. This purpose is bringing about learning on the part of the learner.

On the basis of the above attributes we can operationally define *teaching as interpersonal & interactive process consisting of sets of actions/ activities designed to bring about learning.*

2.2. Teaching Principles

Principle is defined as fundamental norms, rules, or values that represent what is desirable and positive for a person, group, organization, or community. They help in determining the rightfulness or wrongfulness of an action. There are some principles of teaching as discussed below:

- The principle of uniting instruction with the national and societal need The Principle of connecting instruction with social life:
- The Principle of integrating instructions of different subjects:
- The Principle of guiding the activities of learners (the principle of teacher's leading role and students' independent work):
- Principle of making instruction comprehensive:
- The principle of vividness in instruction (the principle of giving clear ideas in instruction):
- The principle of understanding individual difference in instruction (the principle of approaching students personality based upon collective activity):
- The principle of applicability and durability of the results of instruction (the principle of stabilizing the results of instruction permanently):
- The principle of shaping instruction systematically according to the curriculum:

2.3. **Effective Teaching**

Activity 2:

 What is effective teaching?

Characteristics of effective teaching:

Effective teaching:

- Clarifies the teacher's explanations and directions.
- Establishes a task-oriented classroom climate.
- Makes use of a variety of learning activities.
- Establishes and maintains momentum and pace for the lesson.
- Encourages students' active participation in the instruction process.
- Monitors pupils' progress and gives attention quickly to pupils' needs.
- Delivers a well-structured and well organized lesson.
- Provides pupils with positive and constructive feedback.
- Ensures coverage of instructional objectives.
- Makes good use of questioning techniques and the like.

2.4. **Concept of Learning**

Activity 3:

 How do you understand learning?

Learning can be defined in different ways. But the most commonly used definition of learning is the one that takes in to account the opposing view of different theoretical perspectives. Learning is defined as a relatively enduring change in an individual's knowledge, attitude and skills as a result of experience and practice. Similarly, Santrock (2011) defines **learning as** a relatively permanent influence on behavior, knowledge, and thinking skills that comes about through experience and practice. In addition; the following definitions are given by scholars.

- ✓ A persisting changes in human performance or potential as a result of the learner's interaction with the environment (Driscoll, 1994).
- ✓ A relatively permanent change in a person's behavior due to experience" (Mayer, 1982).
- ✓ An enduring changes in behavior or in the capacity to behave in a given fashion, which results from practice or other forms of experience (Shuell, 1986).

- ✓ 'Learning is about how we perceive and understand the world, about making meaning (Marton and Booth, 1997).

What do you infer about learning from the above definitions?

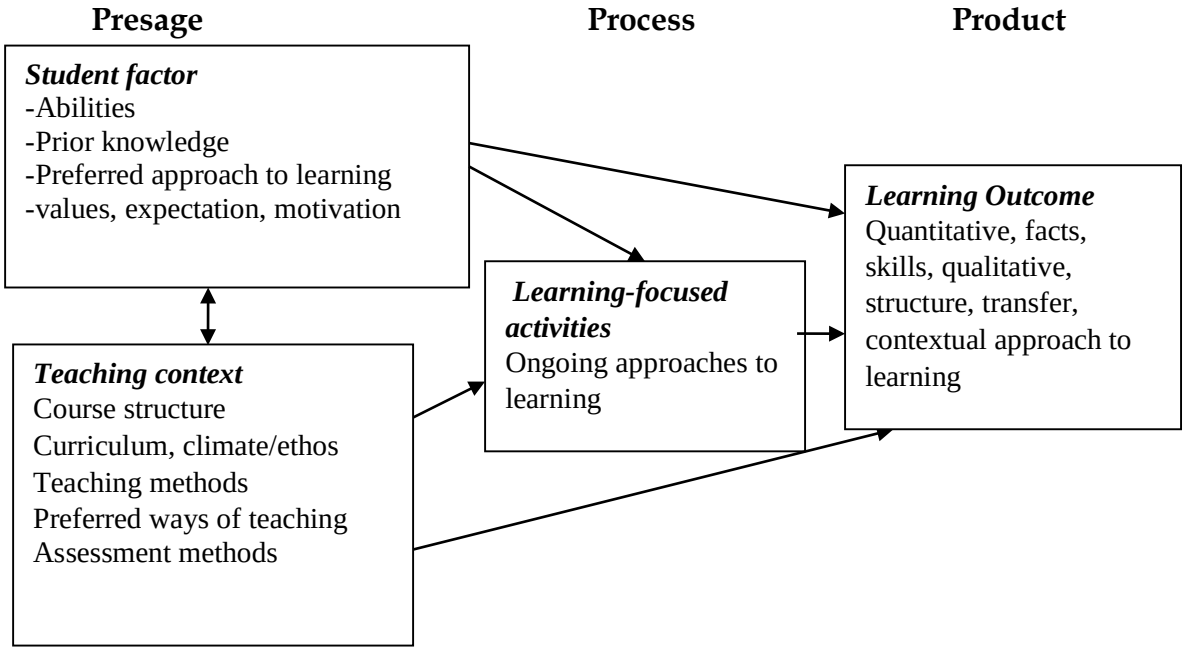
The analyses of the above definitions of learning reveal the following attributes of learning.

- **Learning has enduring nature**: it results in relatively permanent modification of behavior. But, changes due to illness, fatigue, intoxication, hunger, maturation are not considered as learning.
- **Learning involves acquisition of knowledge, thinking, attitude and skill**:
- **Learning is an individualistic mental process:** this indicates mental activity that cannot be directly observable but manifests in the activities of the individual.
- **Learning depends on experience and practice**: means learning results only those changes that occur as a result of the interaction of a person with his/her environment.

2.5. Conceptual model for teaching and learning in higher education

Much of the research conducted on student learning in higher education has been summarized in terms of the 3-P models of Biggs (2003), containing three elements: presage, process and product. The overall assumption that Biggs has about learning through this 3-P model is that learning outcomes are a result of the interactions of the teaching and learning contexts with the student approaches to learning. Both student and teaching presage factors interact to produce an approach to learning, which produces its characteristic outcome. There are no simple answers to the questions 'how do we learn?' and 'how as teachers can we bring about learning?'

Fig 1. The 3-P models of teaching and learning



Adopted from John Biggs 1996

Students bring into the learning system some predispositions that are learning-related, such as prior knowledge, abilities, values and expectations, ways of learning. These learning-related characteristics are referred to as the student presage factors that have a direct impact on the ways students choose to process academic tasks. The teaching context is the environment set by the teacher and the institution, through the course structure, curriculum content, methods of teaching and assessment. Students perceive and interpret the teaching context and adopt a study approach that they think will help them to meet the demands of the teachers and the courses. Hence, an approach to learning is not simply a fixed attribute of the learner, but a function of both learner characteristics and the teaching factors. Case and Marhshal (2004) also indicated as the discipline and level of material to be learnt have an influence on students' learning. Students' characteristics and the learning environment (presage factor) jointly determine the students' perception of learning environment. Then the perception they have about their learning environment, will produce a particular approach to learning which is broadly conceptualized as either 'deep' or 'surface' (Entwistle, 1991 and Ramsden,1983). The model represents relationships between the students' characteristics, perceptions of the learning environment, approaches to learning and learning outcome. Here, what we have

to note is that, the approach adopted by teachers in their teaching and students in their studying should focus to bring maximum learning on the part of students.

The process phase refers to the way teachers and students experience and deal with teaching and learning situations. The heart of the teaching/learning system is at the process level, where the learning related activity produces or does not produce the desired outcomes.

The 'Product' phase of the 3-P model suggests that study approaches are related to qualitative differences in learning outcomes. Students with deep approach will produce high quality learning outcomes, while in the surface approach they will result in lower quality outcomes. The 3P's (Presage, Process and Product) when combined explain what learning is about. It involves the interaction of the student and teaching contexts to produce a particular approach to learning, either deep or surface, which affects the quality of learning outcomes.

2.6. **Features of Learning**

The following points can be considered as the general features of learning.

- Learning is adjustment.
- Learning is organizing experiences**.**
- Learning is purposeful/goal directed**.**
- Learning is active.
- Learning is both individual and social**.**
- Learning is the product of both heredity and environment Learning is unique to the learner.
- Learning is continuous throughout the life

2.7. **Characteristics of effective Learning**

Effective learning should:

- Be meaningful to the students
- Be connected and used to their lives,
- Engage students actively in the process
- Allow students to move further than memorization of facts and bits of knowledge

- Prepare students to understand and participate in a complex world.
- Encourage students to investigate, understand, and analyze their environment to draw conclusions.
- Make students think critically

2.8. Factors Affecting Learning

Dear instructor, please mention some factors that can affect learning.

A number of factors could affect learning. The factors may hinder or facilitate the acquisition of knowledge, skills and attitude.

The factors that can affect learning can be categorized into:

- Factors related to the learner
- Factors related to the teacher
- Factors related to the subject matter
- Factors related to environment

2.9. Approaches to Learning

Activity 4:

- How do students want to learn?
- How do teachers shape students' approach to learning?

There are different types of approaches students prefer in learning. The most commonly known approaches of learning are:

Deep Approach

Students who take a deep approach have the intention of understanding, engaging with, operating in and valuing the subject. Such students:

- actively seek to understand the material / the course

- interact strongly with the content
- make use of evidence, inquiry and evaluation
- take a broad view and relate ideas to one another
- are motivated by interest
- relate new ideas to previous knowledge
- relate concepts to everyday experience
- tend to read and study beyond the course requirements

 Surface Approach

Students who take a surface approach tend not to have the primary intention of becoming interested in and of understanding the subject, but rather their motivation tends to be that of jumping through the necessary hoops in order to acquire the mark, or the grade, or the qualification. When asked, the staff deplores this approach but they frequently acknowledge that the majority of their students tend to take this approach. Students who take a surface approach:

- try to learn in order to repeat what they have learned
- memorize information needed for assessments
- make use of rote learning
- take a narrow view and concentrate on detail
- fail to distinguish principles from examples
- tend to stick closely to the course requirements
- are motivated by fear of failure

 Strategic Approach

The strategic or achieving approach is that approach which students are said to take when they wish to achieve positive outcomes in terms of obtaining a pass or better in the subject. Students taking this approach:

- intend to obtain high grades
- organize their time and distribute their effort to greatest effect

- ensure that the conditions and materials for studying are appropriate
- use previous exam papers to predict questions
- are alert to cues about marking schemes

Generally, higher education instructors are expected to design instructional strategies and assessment techniques that promote deep approach to learning.

2.10. Theories of learning and their implications

Activity 5:

 Have you heard of learning theories? If so, can you give brief state some of them?

There are different learning theories describing what learning is and how it occurs. Though, there are several theories of learning, this manual includes the following three major theories and their classroom implications.

Theme	**Behaviorist Approach**	**Cognitive Approach**	**Constructivist Approach**
Perception of knowledge	Knowledge is mainly made up of fixed facts or information; we divide knowledge strictly according to subject areas derived from academic disciplines.	Knowledge is mainly the outcome of information processing and decision-making.	Knowledge is mainly the outcome of learner's interpretation.
Perception of learning	Change in probability of particular behavior occurring in particular situation.	Change in knowledge is stored in memory.	Change in meaning constructed from experience.

How to learn	The learner learns how to memorize facts and information	The learner learns how to use facts and information by processing information.	The learner learns how to learn to construct his/her knowledge.
Level of thinking	The learner uses less thinking skills	The learner uses thinking skills	The learner uses higher order thinking skills
Teacher's role	Provide a highly structured environment for learning.	Structure and organize information to make the processing more efficient and effective.	Guide and provide materials from which learners can construct their knowledge.
Student's role	Learner is receiver of knowledge.	Learner is active but knowledge is still independent of learner.	Learner is active participant who construct his/her own knowledge.
Relevant principles	Reinforcement, shaping, stimulus and response	Events of instruction, types of learning, learning hierarchies	Collaborative learning, learner centered instruction, scaffolding,

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Unit Three: Active learning methods

Unit description

Dear trainees, welcome to this important session. This unit is designed to help trainees to get information about variety of active learning methods that will help the teacher to make the teaching learning process more active and student centered than the traditional lecture method. The unit will introduce you with the concept of active learning, importance of active learning and different techniques of active learning methods. In addition to theoretical concepts mentioned, trainees will be exposed to practical engagements through reflective activities.

Unit Objectives:

At the end of this unit, trainees will be able to:

- Define active learning
- Explain the purpose of active learning
- Identify variety of active learning methods
- Implement different active learning methods in their teaching
- Identify challenges to apply active learning method
- Appreciate the role of different active learning methods in maximizing students learning.

3.1. Why active learning?

Active learning shifts the focus from the teacher to the student and from delivery of subject content by teacher to active engagement with the material by the student. Through appropriate inputs from the teacher, students learn and practice how to apprehend knowledge and use them meaningfully.
We tend to teach the way we were taught ourselves, rather than in the way that work best. We think we know too much, and rather enjoy explaining. But when one sets activities, listen carefully to learners as they work, this can be even more enjoyable and less hard work than explaining, and the feedback is very informative.

When learning is active, students do most of the work. They use their brains, study ideas, solving problems, and applying what they learn. Active learning is collegial, fun, supportive, and personally engaging. Often, students are out of their seats, moving about and thinking aloud.
To learn something well, it needs to hear it, see it, ask questions about it, and discuss it with others.

Above all, students need to "do it"-figure things out by themselves, come up with examples, try out skills, and do assignments that depend on the knowledge they already have or must acquire.

Activity 1:

1. What is active learning method for you?
2. Explain the traditional teaching methods and outline Students and Teachers' activities in traditional teaching method?

Teacher's activities in traditional teaching method	**Students' activities in traditional teaching method**

3. What makes active learning different from the traditional teaching approach?

Traditional teaching approach	Active learning method

3.2. Definition of Active Learning

Active learning can be defined as any teaching/instructional approach whereby all students are fully and meaningfully engaged in the learning process. Active learning

therefore requires a student-centred approach with a shift in emphasis from passive to active learning; a change in behavior underpinned by a change in thinking and encouraging students to take responsibility for their own learning. The intention of active learning methods is to develop higher order levels of knowledge, such as comprehension, application, critical thinking, analytical skills and evaluation.
Pollard (2008, p288) maintains, "active learning is linked to further factors such as motivation, stimulus and concentration"

In Active learning, we can able to draw two concepts. First, learner uses opportunities to decide about aspects of the learning process. For instance, learners make their own time plan, they choose learning goals and activities they like, they test their progress, they take care of learning and understanding on their own, and they reflect on errors and successes. Active learning, in this sense, has to do with the preparation, execution, regulation, control, feedback and maintenance of learning activities by learners themselves.

Second, active learning focuses on the extent to which the learner is challenged to use his or her mental abilities while learning. The second concept of active learning (tied to mental activity), it is not so much the number and quality of decisions about learning that count but how much activity is asked from the learner. Are students figuring out things on their own? Are they working without teacher supervision? Are they working together in groups? Are they thinking while learning? Are they doing?

3.3. Benefits of using active learning in education

Bonwell and Eison (1991) state that some merits of active learning are:

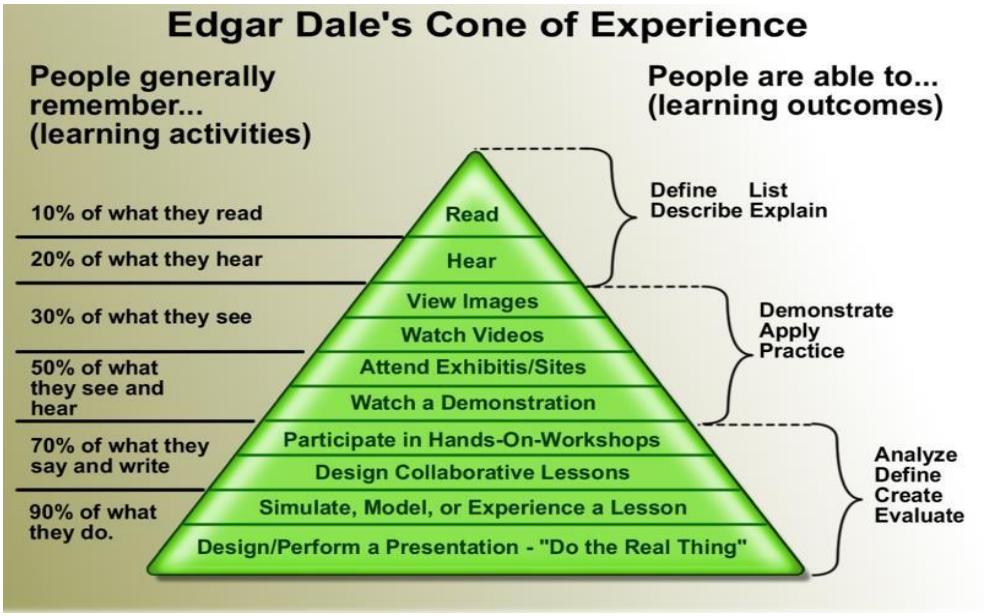
- Students are involved in more than listening,
- Less emphasis is placed on transmitting information and
- Greater emphasis on developing students' skills,
- Students are involved in higher-order thinking (analysis, synthesis, evaluation),
- Students are engaged in activities (e.g., reading discussing, writing), and
- Greater emphasis is placed on students' exploration of their own attitudes and values **Confucius (400 BC) in the history of Ancient China declared:**

- What I **hear**, I forget.
- What I **see**, I remember.
- What I **do**, I understand.

These three statements speak volumes about the need for active learning. Silberman (1996) modified and expanded the wisdom of Confucius into what he calls the Active Learning.

- What I **hear**, I forget.
- What I hear and **see**, I remember a little.
- What I hear, see, and **ask questions about or discuss** with someone else, I begin to understand.
- What I hear, see, discuss and **do**, I acquire knowledge and skill.
- What I **teach** to another, I master.

Look at the following pictorial illustration of active learning methods



The above illustration depicts that when teacher allow students in learning the retention of knowledge increases. This means that while the learner participate and get involved in the learning process by expression, they awaken the sensory organs.

Activity 2:

Dear trainee, here under you are presented with different cases of active learning methods that can be applied in a classroom. Read them carefully and match with the appropriate methods of active learning.

A. Gapped Lectures B. Buzz Group C. Debate D. Decision Line E. Cross over groups F. Visual Aids G. Demonstrations H. Case studies	I. Pair work J. Pyramiding K. Role play L. Hot seating M. Group work N. Jigsaw

Description of active learning method	Method
1. A controversial statement is made and students are asked to stand on a continuous line between 'strongly agree' and 'strongly disagree'. Students are asked to defend where they are standing.	
2. It may be used periodically to break up a lecture and to enable you to check the students are following the lecture. Use a combination of open and closed questions. This will help you to judge your students understanding.	
3. It is a method of teaching where you start with the individual and move to the whole group. Individuals complete a task first and then move into pairs. The pairs discuss the work they have just done and make improvements and corrections. Then two pairs join to form groups of 4. The groups compare the work they have done. Finally, feedback can be given to the whole group. If you have a large class, only choose two or three groups to give feedback. Alternatively you can ask for each group to give a different point.	

4. Students are divided into groups to complete a task. After several minutes, 2 members of the group move to another group to share ideas from their original group. From their sharing, more discussion is developed. After 5 minutes, they will cross-over or "move" to another group. This will ensure that the information you want the students to	
learn, travels through the entire class. This avoids the need for a lot of feedback.	
5. This is a form of group work in which each group member has a specific task to complete within the group. You may assign different tasks like facilitator, note taker, time keeper, chair, observer, reporter, or tasks specific to the topic. Group members can assign tasks if appropriate. The group is responsible for the outcomes, which are evaluated against agreed criteria. Each group member develops different skills. This activity is particularly helpful in homework tasks, project work, assignments, presentations and laboratory assignments.	
6. This is when you give your students material that will excite them and help them think. Often at the beginning of a session, you might want them to start thinking about the topic you are going to teach. You can give the students material which will "get them thinking". This might be an article to read, a picture that makes them ask questions, a demonstration, a video… anything that gets the students interested in the topic you are teaching!	
7. It is an organized discussion on an issue which is usually controversial. The class is divided into at least two groups, each supporting a "side" of the issue: the people who are "pro" and the people who are "against". Each side has a leader and supporters. There is also a chairperson, who keeps order during the debate. Each side presents its argument in an organized, clear, and intelligent manner.	

8. It is when a student or a group of students are given a role to play out in the class. This could be a situation they have to act out, or a person they have to dramatize. For example, in a history class, you might assign each of your students an historical figure to role-play, and they would come into class, having researched that individual, ready to be that person. Another way to do role-play is to divide your students into groups. Give each group a situation, and have them play out that situation.	
9. It is Helpful for students who are not auditory learners. These are pictures, maps, diagrams, charts, videos, DVDs, internet that relate to the information you are giving the students. These should be prepared in advance and put on the wall or board so that all students can see them. Remember that some students will have poor eyesight so any writing should be very clear	

3.4. Different Active Learning Techniques

Active Learning Methods are tools to achieve the important goal of allowing students opportunities to think. The key concept in active learning is that knowledge cannot be transferred; information is transferred but knowledge is what is created when a student thinks about the information. There will be times when you need to tell your students new information; however there are methods to make your lectures more interactive.

Most importantly, in active learning you should provide your students with opportunities to do some work based on the ideas you have given them.
However, employing active learning techniques in the classroom can pose difficulties to teachers and students not accustomed to this mode of instruction. The teacher surrenders some of the control of the class as s/he becomes a facilitator, and the students take increased responsibility for not only *what* but also *how* they learn. Incorporating active learning in the classroom, then, requires students to act. Try using the following techniques to offer your students the opportunity to participate actively in their learning.

Not all of the methods in this guide will be suitable for you but use the information to choose the ones that is appropriate to you.

Categories	Active learning methods	Descriptions
The Lecture methods	Gapped Lectures	A gapped lecture is when you divide your lecture into small sections and give the students an activity to complete between each section. For example posing questions, setting a problem to solve, or a handout can be used to break up a lecture
	Buzz Group	You present information for about 10 or 15 minutes then you break and give students in pairs or small groups about two minutes to discuss what they have learnt.
	Questions and Answers	Q & A may be used periodically to break up a lecture and to enable you to check the students are following the lecture. Use a combination of open and closed questions. This will help you to judge your students understanding.
	Demonstrations	This is when your show the students how something is done. It can be how a theorem is proved, how a problem is solved or how an experiment is conducted.
Interactive Learning method s	Independent learning	Independent learning is when a student works on their own or in a small group independent of the tutor. This can take the form of an assignment completed in class, homework tasks, essays, problem solving, research, an experiment, or any other activities.
	Pair work	This is an activity when students work in pairs. A student can be paired with the person they are sitting beside, or you can pair them with people they haven't worked with before. In the pair, they can complete a task, discuss a topic, answer some questions or prepare a piece of work.
	Pyramiding	Individuals complete a task first and then move into pairs. The pairs discuss the work they have just done and make improvements and corrections. Then two pairs join to form groups of 4. The groups compare the work they have done.

		Finally, feedback can be given to the whole group.
	Group work	This is where preferably 4-6 students work together on a task. It could be a discussion, presentation, fieldwork, a practical, project, drama, answering a series of questions or producing a piece of written work. The key to effective group work is to give clear instructions and to check that all students understand the task and timescale.
	Jigsaw groups	First, divide the class into groups, for example, A, B, C, D and E. Each group gets a different task. Then, once that task has been completed (it could be a short activity of 10 minutes or take the whole session if appropriate) you reform groups by splitting up all the students who previously worked together.
	Cross over groups	Students are divided into groups to complete a task. After several minutes, 2 members of the group move to another group to share ideas from their original group. From their sharing, more discussion is developed. After 5 minutes, they will cross-over or "move" to another group.
Methods of generating and Recording Ideas	Brainstorming	In this activity students write down everything they know or think about a given topic. It can be used as a way of finding out what the students already know on a subject before you start teaching or as a review activity.
	Spider diagram	Give students a topic which they can write in the middle of the paper, and then as they think of each idea, they write it

		down and draw a line connecting that idea to the central idea.

	Mind map	The students write the topic to be explored in the Centre of the page, using three colors and an image attached to the topic. Then, they branch out on sub topics, which are then broken down into smaller sub topics. Each branch should be a separate color, with one word written above it indicating the sub topic. From these main branches, smaller branches will go off in different directions
	Thought bubble	A thought bubble is a reflective activity where the students write down their thoughts on a particular topic. They can write them in a bubble as a visual representation of their thoughts.
Exploring and analyzing ideas and opinions	Picture analysis	This is when you could bring in an interesting picture and ask the students to discuss it.
	Case studies	You provide the students with a case study or scenario which the students have to read and make a decision or answer questions on how they would deal with the situation.
	Ranking tasks	A ranking task is when you give the students a number of statements or ideas written on cards, and then they have to "rank" or order them in terms of what is most important to least important.
	Matching exercises	This is an activity when students match one column of information, definitions, or descriptions, with a second column.
	Debate	The class is divided into at least two groups, each supporting a "side" of the issue: the people who are "pro" and the people who are "against". Each side has a leader and supporters.
	Decision Line	A controversial statement is made and students are asked to stand on a continuous line between 'strongly agree' and 'strongly disagree'. Students are asked to defend where they are standing.

	Role play	Role-play is when a student or a group of students are given a role to play out in the class. This could be a situation they have to act out, or a person they have to dramatize.
Experiential Learning	Story telling	Storytelling can take two forms: either the instructor tells a story, or the students tell a story. In some cases, the instructor might start the story, and have each student contribute to the tale.
	Research	In this activity, students investigate a problem, theory, idea, or topic. This investigation is completed in a rigorous and methodical manner. Students will often explore every angle and source of the topic to reach their own conclusion
	Visits	Visits, as an activity, involve the teacher organizing a trip to a place of interest for the class.
	Fieldwork	Fieldwork involves the students going into their field of study to collect and collate data and information on a specific topic. For example, plant biologists could go into the "field" to collect plant specimens to analyze.
	Project work	Project work involves giving the students a project to complete in a specified amount of time. Projects can be done individually or in groups.
	Experiments	An experiment involves taking a theory or idea, and testing to see if it is true. It usually involves a very specific and controlled method of procedure, and results are usually recorded.

Activity 3:

What are the main challenges to use active learning in a classroom and how can we minimize those challenges?

Activity 4:
Look at the following cases carefully and give comments for the following questions 1. What good qualities do these teachers have? 2. What poor qualities do you observe? What do you recommend to these teachers? 3. What active learning methods do these teaches use? 4. What do you comment about each method of teaching generally?

Case 1

Sirak is teaching in one of teacher education colleges in Ethiopia. He taught Biology for about 20 years. He as tradition believes in his teaching that students need to get enough amount of information through explanation. He always wants his students to listen to their maximum and take notes. He, however, encourages students to interrupt him and ask questions or clarifications. He also likes to dictate students when he feels that students do follow him. As to assessment, he keeps regular and formal assessment techniques. He at least gives students two or three tests and one final exam; his exams are almost always essay oriented. He is always scared of showing students their test results for fear of complaints in marking.

Case 2

Emebet is a mathematics teacher in one of the teacher education institutions in Ethiopia. She usually revises the previous lesson for about four or five minutes. She begins the daily lesson by giving some brainstorming activities. She also gives her students a whole list of notes and usually this is done by writing on the black board. She doesn't care about her handwriting. Complaints are heard from students that they do not read her hand writing and hence they do not get meaning of her class. They, however, are heard saying, she is good at giving them exercises and worksheets. She gives them continuous worksheets as home take assignments. When they are coming back, she asks students randomly to reflect on the tasks of the worksheet. She gives some credit for the students' reflection, and she takes the reflection as part of the overall assessment techniques. She is highly criticized by her colleagues for not keeping formal exam schedules.

Case 3

Gaddisa is an English language teacher in a certain high school in Addis Ababa. His appearance is smart and even he is well-dressed. He is humorous, friendly and cheerful. He arrives on time, his lessons are well planed, and he completes always a lesson plan. He provides students regular opportunities for his students to practice speaking skill. He makes students to work hard by providing them class activities and home take assignments. He selects interesting, familiar topics for discussion; he makes sure that students do get enough time to plan and prepare what they are going to say before they speak to groups. He also runs an English speaking forum every one day of a week. He believes that this reduces anxiety and students develop confidence. He marks students' work regularly and provides them feedback right after the test or the assignment. He is seen most of the time favouring the girls in the classrooms in that he calls girls name and gives opportunities for them.

Case 4

Ato Abera Zemedkun is a Mathematics teacher in one high school located at the rural area of North Shoa. The teacher does not prepare any lesson plan. He enters into the class without having any note on the content what he teaches. However, he is supposed to be an effective and brilliant mathematics teacher at grade 11. As soon as he enters into the class, he begins with a new topic and gives more explanation on the topic with explicit examples. At the interval he asks some questions and he gives the answers soon without initiating the students to answer it. The next time, he gives class work on the topic he discussed previously and checks only the brilliant students' exercise books.

Case 5

Ato Ashenafi Girma is civics and Ethical Education teacher in a high school in Ethiopia. Ato Ashenafi prepares lesson plan, however, he did not write all the activities what he teachers in his plan. He usually presents the topic with appropriate teaching aids. When he wants to make the students active participant, he spontaneously arranges debating program in the class and he thinks to write the related topics to the content which will be used for debating. He usually assigns clever students to be involved in the debate.

Case 6

Yilma is teaching professional and topical issues course in one college. Yilma distributes the course out line to the students and read the objectives and

contents of the course, and family he uses compatibility grouping and usually forms 6 groups. For each group he divides the whole contents of the course and then he appoints the students to come after a month for the reflection.

Case 7

Zinash is teaching "principles of curriculum in one college in Oromia Region. Before she gives brief explanation on a particular topic, she asks the students if they know something about that topic. She accepts the opinion of the students without saying "right" or "wrong" and finally she gives brief explanation including short note. For the next time, she repeats the same thing. However, she usually gives tasks to be presented individually/ in groups. Individual assessment contains more weight than quizzes and group work. She gives less weight for group work.

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Unit Four: Classroom Management
Unit description

This part of the module will acquaint you with the basic knowledge and skills of handling classroom problems and arranging the room setting appropriately for different instructional activities to ensure a smooth and effective teaching-learning process. It mainly focuses on major issues of classroom organization and classroom management.

Unit Objectives:

At the end of this unit, trainees will be able to:

- ✓ Define classroom management
- ✓ Differentiate Features of effective classroom management
- ✓ Explain the purpose of classroom management
- ✓ Apply different techniques of classroom management techniques
- ✓ Identify major causes of classroom problems
- ✓ Distinguish different types of Approaches in managing student behavior
- ✓ Describe the interrelationships between instructional methods and seating arrangement,

4.1. Definition of Classroom Management

Activity 1:

Dear trainee, discuss the following questions in-group and present your point of agreement to the whole participants.

1. How do you define classroom management?
2. What are the main features of well-managed classroom environment?

Classroom management (CRM) is a means of creating conducive classroom atmosphere that facilitates effective learning by managing students' behavior, the session, time, methods of teaching, and other teaching and learning

resources. It is referring to managing the classroom situation to ensure that an atmosphere is generated where the most effective learning takes place for all students. *CRM* creates a climate that facilitates and maximizes students learning.

Classroom management is the art of carefully preparing, presenting, disciplining and controlling class activities. Classroom management is also the process of organizing and coordinating a class so that there can be efficient and effective learning. Students are composed of diversified attitude, values, maturity, age, family background, etc.

Thus, the teacher is highly expected to manage such varieties of behaviors. Although there are many pedagogical strategies involved in managing a classroom, a common denominator is making sure that students feel they are in an environment that allows them to achieve. Classroom management also involves managing

- Contents of the lesson,
- Methods of teaching,
- Materials and space,
- Time allotted to a given lesson, and
- Students' behavior and their social relationship.

4.2. Features of effective classroom management

Effective classroom management is the process of making teaching learning effective and attractive by avoiding the problems that affect learning at the classroom level. To be effective, the CRM should have the following features:

- Carefully planned, varied, and interesting activities in the process of teaching and learning.
- Good organization/setting of the classroom in a way conducive to the teaching learning process.
- Attractive presentation
- Supporting and monitoring students activities
- Effective and efficient time utilization
- Setting and applying ground rules accepted by the students
- Establishing good relationships with students (greet, respect, smile, praise, show concern, role model etc.)

4.3. Purposes of Classroom Management

Activity 2:

- Dear trainee, discuss the major purposes of classroom management and list some of them

The main purposes of classroom management include:

- To enable learners to be active in their learning
- To establish a classroom atmosphere that facilitates smooth and efficient teaching and learning
- To use time properly to carryout designed learning tasks.
- To create participant interest and desire to learn so as to achieve objectives.
- To avoid disciplinary problems
- To ensure that class time to concentrate on instruction, not on side issues.
- To secure the support and cooperation of students in classroom activities.
- To ensure the active and meaningful engagement of students in the learning task at hand, and

Therefore, by managing the teaching learning process in the classroom we can maximize students learning, which is the ultimate goal of education. In addition to the above benefits, classroom management also have the following additional importance

- **It engages students**: Students who are engaged in lessons and the learning material will be able to register the information better and be able to apply their knowledge when it comes to test taking.
- **It keeps students prepared**: When teachers and students are prepared to learn, lessons and learning will be easier to be administered and the results will be more effective.
- **It boosts confidence:** In an effective classroom, teachers are able to give more attention to each student and structure lesson plans to meet certain needs. All of these factors will help in boosting the confidence of students.

4.4. Major Causes for Classroom management problems

Activity 3:

- From your own experience as a student /teacher/, what are the major sources of classroom management problems**?**

Problems in classroom may arise from different sources. The causes can be instructor related, student related or university and environment related. Various specific problems will arise from these sources and can be seen as follows. The major causes for classroom misbehavior:

A. Teacher-Related Problems

Teachers can be sources for classroom misbehavior in the following aspects:

- Lack of knowledge and skill on the subject thought
- Lack of variety in instructional techniques and failure to use appropriate teaching-learning methods.
- Failure to involve students in the teaching learning process.
- Failure to apply major principles of teaching.
- Failure to use appropriate teaching-learning materials
- Bad pacing (too fast or too slow).
- Unfair assessment and evaluation of students work.
- Unclear assignments.
- Insufficient activity for students.
- Negative teacher attitudes towards students and the subject.
- Using corporal punishment and negative statements.
- Arriving late for class.
- Unequal treatment and unenforceable threats.
- Absence of language or gestures.
- Failure to enforce the rules set.
- Failures to properly plan lessons.
- Inadequately communicated goals and objectives.

B. Students-Related problems

Some of the aspects at which students can be cause for classroom misbehavior are mentioned below:

- Cheating ;
- Negative students' attitude to education and antipathy to school. Lack of interest in a particular subject.
- Lack of prerequisite skills on the subject taught.
- Ignorance of classroom rules.
- Dislike to a teacher or hostility towards a teacher.
- Day dreaming.
- Student lack of concern.
- Failure to follow instruction.
- Attention seeking

Arriving late for class

C. related problems

- Poor facilities (books, classrooms, internet, laboratories etc)
- Poor orientation to the rules and regulations Lack of involvement in decision-making.
- Peer pressure
- Political influence/ off campus pressures/

4.5. Approaches in managing student behavior

There are five different classroom management approaches.

1. The authoritarian Approach
2. The instructional Approach
3. The Behavioral Approach
4. Modeling
5. Behavioral counseling

A. The authoritarian Approach

This approach suggests five managerial strategies that a teacher can use to preserve order and maintain control

a) **Establishing and enforcing rules**: The teacher should use rules that are realistic, reasonable, well defined, limited in number, and clearly understood.

b) **Issuing commands, directives and order:** Commands are statements which describe what students are expected to do. The commands, directives and orders should be clearly stated and easily understood to control student behavior.

c) **Utilizing mild Desist:** The teacher reproves the student for behaving in an unacceptable way for violating a rule. They are verbal or nonverbal teacher behaviors intended to inform.

d) **Utilizing proximity control :** this refers to moving closer to a student whom the teacher sees misbehaving. The physical presence might cause the student to refrain from misbehaving.

e) **Utilizing isolation and Exclusion :**this refers to using isolation, exclusion, school detention, suspension and others in response to serious student misbehavior.

B. **The instructional Approach**

This approach argues that effective classroom management is the result of high quality instructional planning. Thus, a teacher have to carefully plan good lessons that are tailored to the needs and abilities of each student. The instructional approach suggests the following strategies to be practiced by teachers.

1. Provide interesting, relevant and appropriate instruction;
2. Employ effective movement management (i.e., the ability to regulate the flow and pace of classroom)
3. Establish classroom routines
4. Give clear directions,
5. show genuine interest in a student's work when he/she shows sign of boredom or restlessness,
6. provide assistance before a situation gets out of hand,
7. plan and modify the classroom environment
8. Restructure the situation when necessary (i.e., changing the nature of activity, the focus of attention, etc.)

C. **The behavioral modification approach**

Behavioral modification refers to a systematic application of antecedents and consequences to change behavior.

The following strategies for dealing with misbehaviors are based on behavioral learning theories.

- Non-verbal cues (i.e., eye contact, gestures, physical proximity or touching used to communicate without interrupting verbal discourse)
- Praising behavior that is incompatible with misbehavior
- Verbal reminders
- Repeated reminders
- Applying consequences

Thus, appropriate behaviors are strengthened by praise and inappropriate ones diminished by ignoring them.

An accurate summary of the lessons gained from the behavior-modification approach:

1. Rewarding appropriate student behavior and with holding the rewarding of inappropriate behavior are effective in achieving better classroom behavior
2. Punishing inappropriate student behavior may eliminate that behavior, but may have serious negative side effects. (avoid physical punishment)
3. Rewarding appropriate behavior is probably the key effective classroom management.

D. Modeling/Social learning

- Modeling is a process in which a student, by observing another person behaving, acquires new behavior without himself/herself being exposed to the consequences of the behavior.

- Modeling is learning by observing and imitating other's behavior.
- Modeling, as a managerial approach, may be viewed as a process in which the teacher demonstrates, by his/her own actions, the values and behaviors he/she wants students to acquire and display.

E. Behavioral counseling

- Behavioral counseling is a process involving a private conference between a teacher and the student. It is a conference intended to help the misbehaving student sees that his/her behavior is inappropriate, and to plan for change.
- In the classroom, the teacher's role as counselor becomes important in situations where students who misbehave need some guidance or someone to give them a sense of direction.
- A teacher can win a student's confidence by establishing emotional contact with the student's feelings, taking the student's feeling seriously and,
- respecting the student's dignity considering him/her as unique individual
- **Listening and talking**: talking and being listened are basic universal forms of human interaction. Counselor's listening is professional type rather than lay type of everyday lives.
- **Using escape values**: for many people, crying, laughing, and singing provide instant tension relief.
- **Encouraging and reassuring** these involve praising and reinforcing good behavior.

  Teacher's effectiveness in using encouragement depends on two factors. The authenticity of the encouragement; and the realistic means with which it is given.

- **Enlightening**: it should help students recognize the reasons for their behavior and make them more aware of alternative ways of behaving. it can be achieved in two ways:

4.6. Techniques of managing Classroom Misbehavior

Classroom management is an integral part of teaching, and the teacher must acquire basic techniques of managing students. Classroom management is seen as set of activities by which the teacher establishes and maintains those classroom conditions to facilitate effective and efficient instruction. It can be

described as an act of a teacher taken as preventive or curative activity to administer so as to minimize or to put an end to any classroom misbehavior respectively. The specific classroom management techniques that teachers employ to maintain classroom misbehaviors can be classified as:

A. Preventive Techniques of Classroom Management

- ✓ These are measures to be taken by the teacher before students are engaged in misbehavior.
- ✓ Are precautions not to give way for misbehaviors,
- ✓ Are applied on the basis of the principle "prevention is better than cure" Preventive techniques include:

- ➢ Provision of freedom (e.g. making students feel free from frustration, let them express their ideas, etc.)
- ➢ Sharing responsibility,
- ➢ Provision of incentives: Praising for what good things they do.,
- ➢ Establishing good interpersonal relationships,
- ➢ Making teaching effective or good,
- ➢ Cooperative rulemaking-allowing students to get participated in making amendments or suggesting new rule of their own makes the anxious to enforce the rules than violating Explaining procedures(making directions clear to avoid ambiguity),

B. Curative or Corrective Techniques (Monitoring techniques)

There are times, however, that students may create problems that disrupt the classroom discipline no matter how the teacher is without any of the problems listed above. This could be because the students may have some problems related to inattentiveness, or other problems they might have at home.

The following are some of the general or classic curative measures that you as a teacher can use so as to help the students develop self-control.

a) **Signal interference**: - in some cases a subtle signal can put an end to budding misbehavior. The signal or body language, if successful, can stimulate the student to control him/or herself.
b) **Proximity control**: place yourself close to the misbehaving student. This makes a signal more apparent.

c) **Interest boosting:-** convey interest in the incipient misbehavior, directing such students
so that they will concentrate on the school work.

d) **Humor:** - humor is an excellent influence, especially in tense situations. However, remember that it should not convey any irony or sarcasm.

e) **Retribution: -** when efforts at prevention and subtle control fail, you may occasionally have to resort to forms of retribution. If the misbehavior is an accomplished fact, you have no choice but to require the guilt party to suffer consequences. This is because retribution teaches the students that they should not break rules. Retribution can have such forms as withholding privileges, detention, putting them in a quiet room for some time, discussing in private, and sending them to the principal.

f) **With-it-ness**: means teacher's knowledge and understanding of what is occurring in his/her classroom. This refers to the ability to demonstrate that the teacher knows what was going on and it is defined as a teacher is communicating to the students by his/her actual behavior that she/he knows what the students are doing, or has "eyes in the back of his/her head"

Activity 4:

Dear trainee, here you have list of different techniques of classroom management listed. Please categorize them in to the following major categories of classroom management techniques:

Preventive, monitoring/ curative/

1. Signal students when they are drifting inappropriate behavior
2. Providing varied activities, some compulsory and some optional
3. Providing clear instruction on what students should be done
4. Practicing good teaching methods
5. Being aware of every students reaction
6. Using reward and reinforcement methods
7. Following up on understanding of instruction
8. Setting ground rule
9. Paying attention
10. Conducive seating arrangement
11. After class advise and support
12. Proper session and course plan

Preventive technique	**Monitoring technique**

4.7. Aspects of Good Classroom Management

Activity 5:

Dear trainees, prioritize the following aspects of good classroom management. Give your own reasons for your decision by completing the table**.**

A. Ensuring effective classroom discipline so students work efficiently and smoothly.

B. Directing learning activities and involving all students in activities tailored to their own ability and space.

C. Using teaching and learning resources (handout, books, etc.) effectively.

D. Employing a variety of appropriate teaching and learning methods to meet the preferred learning styles of the students. E. Managing class time effectively.

F. Establishing a good classroom atmosphere.

G. Supporting and monitoring student interaction.

H. Setting ground rules at the beginning of the semester and revisiting them regularly.

I. Being a good role model.

J. Giving clear instruction.

Prioritize the aspects of classroom management using the alphabets	Reason(s)

Helpful Guidelines for Effective Classroom Management

- Have a good plan;
- Have good subject mastery;
- Use rewards;
- Apply better methods of teaching;
- Respect professional code of ethics;
- Respect the students;
- Evaluate your students fairly;
- Encourage students participation;
- Keep your promise;
- Use humor, etc.

There are also the following **eight factors** that provide the foundation for an effective classroom management and discipline strategy. Each is discussed below. Addressing these enables a teacher to use the "winning ways" in classroom management that help create an environment in which the teacher is respected the classroom is peaceful for all and learning proceeds unhindered.

1. **Letting students know classroom rules and consequences for not following them**: This critical factor, described further below, is the step through which clear and specific classroom guidelines are established. There are three components to this. The first is establishing classroom rules-the set of standards that all students will follow. The second is determining the consequences if these standards are not met-the things that occur in the situation that rules are not followed. The third is the identification of rewards those ways in which adhering to standards is recognized and rewarded.
2. **Providing instruction that matches students' abilities**: Instruction should be at a level that is not too easy for students, leading to boredom, and not too difficult, leading to frustration. The ideal instructional level is that which is somewhat challenging to the student and which the student can attain-consistent with the principle of the zone of proximal development. If instructional materials are not at the appropriate level for a student, there is a good possibility that the student will be frustrated and misbehaved.

Hence, assessing students' knowledge levels and identifying instructional materials that will enable them to learn in challenging ways is a key to effective classroom management.

3. **Varying the instructional approaches used in the classroom**: Research shows that elementary grade children tend to be able to attend carefully to one style of presentation for approximately 10 minutes, and secondary school students for approximately 15 minutes.

   When students are no longer paying attention, behavior problems occur. Hence, a valuable strategy for preventing classroom management problems is for a teacher to vary the style of classroom presentation and of classroom activities.

   If there is a change of pace with some frequency and if students have the opportunity to move from one type of learning to another during any class session, it is most likely that inattentiveness and restlessness will be minimized.

4. **Providing a number of learning choices:** Giving students a number of choices for undertaking a class assignment enable them to choose the one that is most personality meaningful to them and makes clear that they do have influence on what occurs in school. It can prevent the difficult situation in which, with only one learning path, some children do not succeed, with the result that they act out because they feel like failures. We know from the work of Howard Gardener that children learn likelihood of a well-managed classroom.

5. **Expecting students to be responsible for their own learning and behavior:** We know that the best way to foster responsible behavior is to give students responsibilities, and the way to foster irresponsible behavior is to deny students responsibility. Teachers need to remember that if they "demand a lot," they will get a lot. If they "expect a lot," they will get a lot. But, if they "ask for little," that is exactly what they will get. Students should be expected to complete and turn in their homework. They should be expected to be in class on time and ready to learn. They should be expected to try hard and apply themselves in every assignment. And, they should be expected to help create a well-managed classroom, free of discipline problems. If they know they are responsible for these things, there is a far greater likelihood that they will consider them meaningful, personal priorities than if they consider them someone else's responsibility.

6. **Listening to what students are thinking and feeling**: One of the most important things a teacher can do is to listen empathetically to students' needs. This has the potential for preventing or eliminating misbehavior. We need to recognize that behavior problems occur when students feel anxious, hurt, afraid, and angry or rejected. If a teacher listens to a child who is having negative feelings, the need to resort to misbehavior is eliminated. This means more than simply letting the child or adolescent talk. It means having a teacher communicate with empathy the concern the teacher feels for the student. It means having a teacher communicate with empathy the concern the teacher feels for the student. It means helping the student try to find an avenue to solve he student try to find an avenue to solve the problem that is causing the negative feelings.
7. **Legitimizing behavior that cannot be stopped**: There are some behaviors, such as conservation among adolescents that is difficult to keep away from the classroom. With peer culture of great significance to adolescents, they continually want to interact with one another.

   There are many ways that teachers can build learning environments that recognize the traits of students and build on the behaviors that are characteristics of groups of learners at particular stages or of various backgrounds. Collaborative learning, for example, enables adolescents to work together, turning their need for peer interaction into an asset rather than a liability. Similarly, young students want to be active. Creating learning environments that require them to be active, moving about the classroom as they solve problems, for example, builds upon the characteristics they bring to the educational environment.
8. **Recognizing that there are some students who have serious behavior problems**: It is often stated that you can best understand the patterns of behavior in a classroom if you recognize the 80-15-5 rule. The rule states that approximately 80% of students will not be a behavior problem in a well-managed classroom. If instruction is matched to their level of ability, they are likely to adhere to the expectations for them and will rarely if ever be a behavior problem. Approximately 15% of students will be a discipline problem some of the time. These are children who may be experiencing difficulties at home or in learning, thus feeling frustrations that they deal with by misbehaving. Their behavior is acceptable some of the time, but not acceptable other times. The remaining 5% are students who are under serious stress, who have learned in the past to misbehave, or who are

involved in non-school behaviors in the past to misbehave, or who are involved in non-school behaviors (drinking, taking drugs, etc.) that lead to significant non-school behaviors (drinking, taking drugs, etc.) that lead to significant problems in school behavior. It is very important that teachers not develop a sense of failure due to difficulties in dealing with this type of student. Rather help needs to be sought from administrators at the school or from a psychologist to give the student the kind of assistance beyond the classroom necessary to identify and address the problem.

4.8. Seating Arrangement as means of classroom management

The physical setup of chairs, tables, and presentation in a classroom can significantly influence learning. Instructional communication theory suggests that seating arrangements can affect how the instructor communicates with students and how the students interact with one another, impacting engagement, motivation, and focus

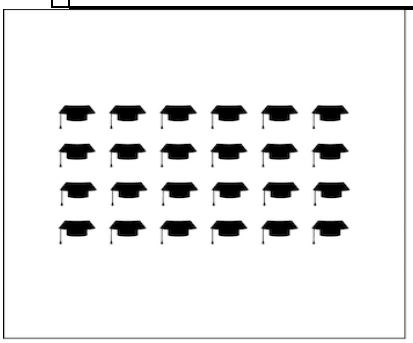
Spaces designed in a student-centered manner, focusing on learner construction of knowledge support student learning (Rands and Gansemer-Topf, 2017). In reality, however, many classrooms at colleges and universities have been built using more conventional models for lecture and seminar-type courses. Instructors can consider ways to modify seating arrangements and match arrangements with the demands of classroom activities in order to help maximize student learning.

Activity 6:

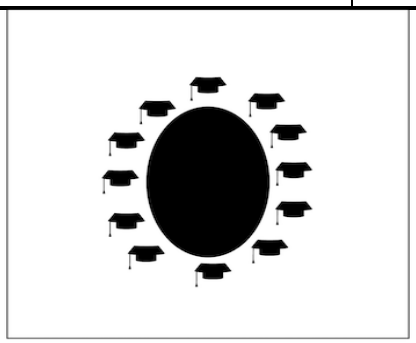
1. look at the following classroom seating arrangements and discuss the advantage and disadvantage of each methods

Seating arrangement	Advantage	Disadvantage
Traditional		
Roundtable -		
Horseshoe or Semicircle		
Double Horseshoe		

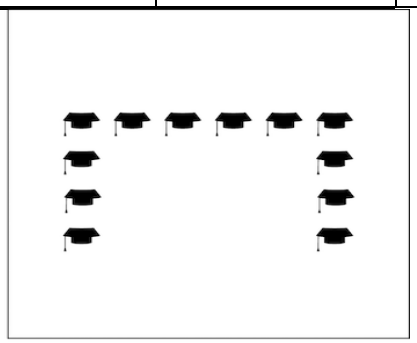
Pods (Groups, Pairs)		
Fishbowl		



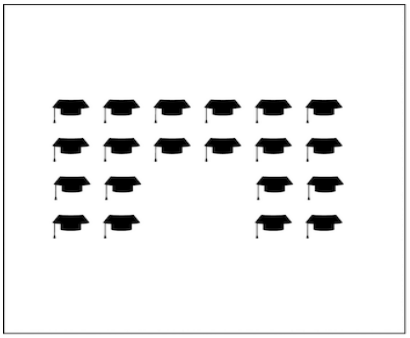
Traditional



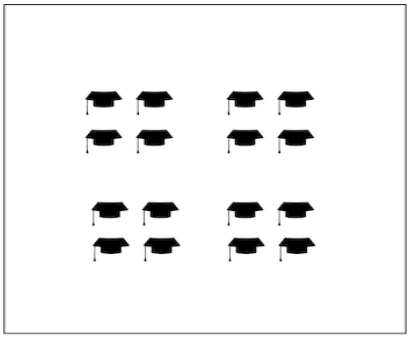
Roundtable



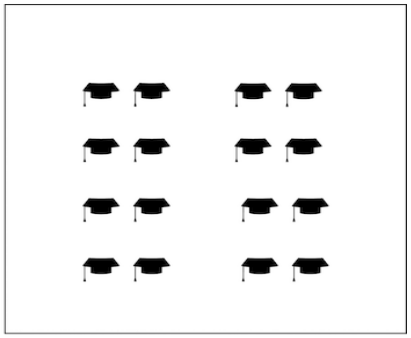
Horseshoe or Semicircle



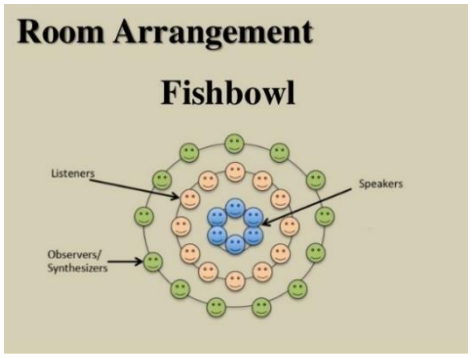
Double Horseshoe



Group Pods



Pair Pods



Explanations of the seating arrangement

- **Traditional -** The traditional lecture setup typically consists of rows of fixed seating. Students face the instructor with their backs to one another. This classroom seating arrangement is historically common in colleges and universities, minimizing student-student communication and largely supporting a "sage on the stage" learning environment. The highest communication interactions between professors and students typically occurs with students in the first row or along the middle of the classroom. Students in back rows are more likely to be less engaged.
- **Roundtable -** Many seminar-course room arrangements may consist of instructor and students sitting around a single large table. This seating arrangement can also be formed using individual desks. Students and instructors all face one another in this setup, which can support whole-class as well as pair-wise dialogue.
- **Horseshoe or Semicircle** - The horseshoe or semi-circle offers a modified roundtable setup, where all participants face each other while the instructor can move about the room. The horseshoe encourages discussion between students and with the instructor, although this setup tends to encourage more engagement between the instructor and students directly opposite, with slightly lesser amounts for students immediately adjacent to the instructor. A horseshoe setup can be particularly effective when the instructor wishes to project and discuss courserelated material in the front of the class.
- **Double Horseshoe -** This seating arrangement involves an inner and outer horseshoe, and similar to the conventional horseshoe, invites greater discussion than the traditional format. It is more limited by the backs of students within the inner circle facing students in the outer circle. However, students may also more easily interact with those nearest to them or turn around and face students behind them for group work.
- **Pods (Groups, Pairs) -** The pod or pair arrangement can be designed with rectangular, circular or trapezoidal tables, or individual desks. With regards to stations, instructors can place several tables together to form student groups or pairs. This arrangement can be especially advantageous when students will work in groups or pairs with their classmates for a large portion of class time. More generally, this arrangement communicates a learning community where students are expected to work with one another.

- **Fishbowl discussion-** In a Fishbowl discussion, students seated inside the "fishbowl" actively participate in a discussion by asking questions and sharing their opinions, while students standing outside listen carefully to the ideas presented. Students take turns in these roles, so that they practice being both contributors and listeners in a group discussion. This strategy is especially useful when you want to make sure all students participate in a discussion, when you want to help students reflect on what a good discussion looks like, and when you need a structure for discussing controversial or difficult topics. A Fishbowl discussion makes for an excellent pre-writing activity, often-unearthing questions or ideas that students can explore more deeply in an independent assignment.

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Unit Five: Educational Assessment and Evaluation

Unit Description

In Higher Education Institutes, instructors are highly expected to assess students for making sound educational decisions. The decisions that could be made may be with regard to students' behavior, academic achievement, planning and delivering instruction, etc.

However, these conditions shall not be fulfilled without collecting adequate, valid and reliable data on the basis of assessment and evaluation. Besides, tests play dynamic role in assessing students' learning progress or performance in higher education institutes. They provide direct measures of important learning outcomes (or profiles). Due to this reasons, test developers and above all instructors need to show genuine concern in planning, constructing and using different types of test formats to properly assess and evaluate students' overall achievement.

Unit Objectives:

At the end of this unit, trainees will be able to:

- Define terms as measurement, assessment, and evaluation in education context;
- Explain the different purposes of assessment techniques;
- Differentiate the role of formative assessment, diagnostic assessment, placement assessment, and summative assessment.
- Relate the different assessment methods to classroom instruction during the start, the process, and at the end of class.
- Describe the differences between objective (selection) tests and subjective(essay) tests Identify pre-conditions in planning a test.
- Prepare table of specification.
- Appreciate the value of giving attention to table of specification
- Describe the merits and demerits of the different test formats with respect to behavior assessed, coverage of content, construction, and scoring.
- Select appropriate item types or formats
- Value the construction of appropriate items with respect to learning objectives to be measured

- Construct relevant test items to assess students' achievement in their respective classes
- Administer tests to determine the success of students
- Appraise test items to improve items

5.1. Educational Measurement, Assessment, and Evaluation

Dear trainees, what do you understand by educational measurement, assessment, or evaluation?

Do you think that they are the same?

Terms as measurement, assessment, and evaluation are likely to be used interchangeably without taking into consideration their differences. Use your prior experience

Activity 1: Which of the following sentences belong to measurement, assessment or evaluation

use a "□" mark.

No	Items	Meas.	Ass.	Eva.
1	Aster solved 35 questions correctly out of a 70 accounting test items			
2	Observing students while discussing on certain topic.			
3	Assessing students' learning progress or difficulties			
3	Tolla didn't do well in the group work presentation			
4	Ermias is a brilliant student from the class			
5	Samrawit scored the highest mark (80%) in management final examination from first year students			
6	Six students identified as best in selecting, organizing and presenting ideas in their reporting.			
7	Mekdes's handwriting is poor, she needs to improve it.			

8	Testing students to examine their academic performance using test, examination, etc.			
9	Gemechu is capable, so he should be promoted to the next semester			

How did you find activity 1?

There seems to be some confusion. Thus, it appears logical to define these conceptual terms separately for a better understanding.

5.1.1 **Educational Measurement**: refers to a systematic description of student's performance in terms of numbers. For example, a student solved 30 of the 50 Science items in a test correctly (Gronlund, 1981).

Essentially, the process of scoring a test involves assigning a number to each student based on his/her performance on the test. The process of assigning numbers, or quantifying, to represent an individual's performance is called **Measurement**; it is to represent some characteristic of the individual. A person's height, weight, and shoe size, etc., are all determined by measurement. So also, a person's performance on a test is determined by measurement; and performance on the test items is translated into a score that stands for the student's achievement and that is used in making decisions(Airasian, 1991; Gronlund & Linn, 1990; Ogunniyi, 1984; and Thorndike and Hagen, 1977).

Generally educational measurement involves measuring devises, like tests, exams, quiz, oral questions, laboratory works, group work, project work, research work etc.

i. **Test**: It involves a series of questions with varying item types. It is given formally while a course is on progress. Its purpose is to assess the learning progress and identify if there is learning difficulties.
ii. **Quiz**: It is short and informal and given at class hour, just at the beginning, in between or at the end.
iii. **Examination**: It is comprehensive covering a vast area of contents. It is given at the end of a course or semester. Its main purpose is to assign grade. The number of items to be included is large.

Dear trainees, what activities are involved in the process of educational measurement?

_____

____ The process of educational measurement involves a number of activities:

- specifying what is to be measured (learning objectives and contents to be tested)
- selecting appropriate item types;
- drafting the test items
- assembling items in order of their difficulties;
- administering the test;
- grading and interpreting the scores; and
- Appraising test items and using test results for feedback purpose

5.1.2. Assessment:

It refers to the process of collecting, interpreting and synthesizing information to aid in decisionmaking. For many persons, classroom assessment means using paper – and – pencil tests to grade students. However, it is more than testing. It includes information gathering on students' progress and achievement, instruction, and classroom climate by trainees. It includes interpreting and synthesizing this information to help trainees understand their students, plan and monitor instruction, and establish a conducive classroom atmosphere (Nitko, 1996; Capper, 1996; and Airasian, 1991).

"Assessment is the process of collecting, interpreting, and synthesizing information to aid in decision making" (Airasian, 1997).

"Assessment is a process of obtaining information that is used for making decisions about students, curricular, programs, and educational policy" (Nitko, 1996).

"Assessment is a student evaluation system that operates at the classroom level and is integrated with the instructional process" (Capper, 1996).

More profoundly, Capper (1996) described that in order to determine whether students are truly learning or not, they should be assessed continually or often. But assessing often does not necessarily mean testing often. The idea is assessment devices other than testing have to be considered also.

It is elaborated that assessment in the classroom is highly based on instructor's observation of students as they go about their normal learning activities. It

suggests more than quantifying test results. It is a systematic development of tests and/or examinations, recording and interpreting. It involves observational techniques other than testing to collect information on overall student's performance. From these explanations it may be inferred that assessment is a more broader and inclusive term than measurement (Madaus and Kellaghan, 1993).

The idea is other devices other than testing (informal assessment techniques) have to be considered. *Like observation, interview, oral questions, reflection, group work, student generated questions, identifying the muddiest point in a lesson or series of lessons etc.*

5.1.3. Evaluation

Evaluation has been defined in a variety of ways:

- It is the process of making value judgment about the quality of a student's performance using assessment results.
- It involves quantitative, qualitative and value judgment
- It is the systematic process of determining the extent to which students are achieving instructional objectives.

From this definitions, you can identify three important concepts

- Evaluation implies a systematic process of testing students' performance;
- Evaluation always assumes that instructional objectives have been previously identified;
- Evaluation includes making value judgments, about decision to be made in terms of the set goals.

Evaluation can be defined as the systematic process of collecting and analyzing data in order to determine to what degree objectives have been achieved and then to make decisions about educational processes or programs. Moreover, evaluation is a more comprehensive term than assessment. All data collected for assessment could be used for evaluation. Generally evaluation is understood as assigning of "worth" to existing information. In its broad sense, evaluation involves either quantitative (measurement), qualitative (non-measurement), or both, and value judgment (Gronlund, 2003; and Demb, 1994; and Ebel, 1979).

5.1.4. Continuous Assessment

Dear trainees, what do you know about continuous assessment from your experience?

_____

According to many scholars in the field assessment is the process by which the quality of an individual's work or performance is judged. In Higher education institutes, assessment of learning is usually carried out by instructors on the basis of impacts obtained as they observe their students at work or by various kinds of tests given periodically. When practiced as an ongoing process, such assessment is known as a continuous assessment.

Continuous assessment is used increasingly as an alternative to terminal examinations, because it provides more information reliable than examinations. It builds up a picture of a student's performance over a prolonged and representative period. These days higher education institutes and universities are turning to continuous assessment where by records are kept of the student's performance in nearly everything he/she does during his/her course work. These records build up into a much more complete and reliable assessment of the student than is possible by a single examination. (Farrent, 1980).

- Continuous Assessment is a student evaluation system that operates at the classroom level and integrated with the instructional process for making decisions (Capper ,1996)
- Continuous Assessment refers to a continual process of gathering information about students, instruction, and synthesizes these information to help instructors understand their students, plan and monitor instruction and establish a conducive classroom atmosphere (Capper, 1996; Nitko, 1996; and Airasian, 1997).

i. **Incomplete understanding of Continuous Assessment**

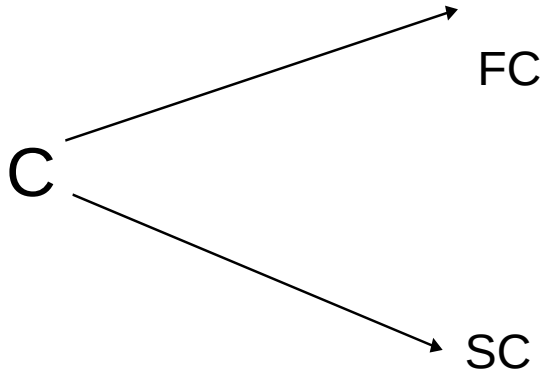
For example in our context the understanding is say a student's achievement is calculated as a combination of 40/50 % for continuous assessment and 60/50 for final exam, which add up to 100%. Look the following

1 Group Assignment	10%
1 Written assignment	10%
1 Quiz	10%
Mid-term test	20%
1Group project + presentation	10%
Final exam	40%
Total	100%

Note: *Good and relatively fair, but incomplete since it misses (ignores) the FCA part.* Continuous Assessment comprises both formative and summative. It is conceptualized that anything graded and recorded belongs to summative assessment. Whereas, if any activity, assignment or test given, graded and not recorded, but used for **feedback purpose (for comments, corrections and remedial/instructional actions)** belongs to formative purpose. Thus continuous assessment is composed of both formative and summative continuous assessment.

CA= FCA+SCA

ii. **Emerging vision of Continuous Assessment**



Thus CA

Occurs before and during instruction to guide and improve learning & teaching. Mostly informal &not recorded.

Occurs at the end of instruction to evaluate students' achievement of objectives. Mostly formal and is used to assign grades.

- It is an ongoing process, which is part of instruction.
- It should be used to help student learning.
- It should be used to evaluate students' learning and one's teaching

5.2. Purposes of Assessment

Dear trainees, can you cite some purpose of assessment that you depend on for making decisions in the instruction process?

_____

Instructors assess for a variety of purposes because they are required to make a broad range of decisions in their classrooms. Some of the decisions may be about the achievement of their students, while others are about their personal and social characteristics, and still others are about instructional plan and progress.

Activity 2:

Directions: Match the purposes of assessment under column B with the assessment explanations in column "A" and write the letter of the correct answer in the space provided.

Column A **Column B**

_____ 1. Assessing students entry behavior for learning

_____ 2. Assessing the relative strengths and weaknesses of students based on series of test results

_____ 3. Assessing student's learning difficulties

_____ 4. Assessing for promoting students from a certain grade level to a relatively higher ones

_____ 5. Assessing students' to assign them differentially according to their ability

_____ 6. Assessing students' learning potential to foretell future performance

_____ 7. Assessing students to identify those with better knowledge, skill, or ability for further training

A. Accountability
B. Selection purpose
C. Predication purpose
D. Diagnostic purpose
E. Placement purpose
F. Certification purpose
G. Standardization purpose
H. Readiness purpose
I. Guidance and counseling purpose
J. Feedback purpose

_____ 8. Assessing to confirm that in different region will have the access to provide similar education to the same group of students

_____ 9. Assessing to ensure that instructors have been effective in their teaching

_____10. Assessing students to give comments and corrections

It is clear that we have attempted to enumerate a variety of assessment purposes for making decisions in the teaching learning process at all higher education institutes.

It is convenient, therefore, to classify or group the different assessment purposes into one of the following methods /types/ of student's assessment (i.e., placement, formative, diagnostic, or summative assessment /testing/).

Activity 3:

Directions: Please, classify the following assessment activities into one of the approaches of assessment. Use a "□" mark.

No.	**Assessment Activities (Procedures)**	**Approaches of assessment (testing)**			
		Placement testing	Formative testing	Project testing	Summative testing
1	Assessing students to identify those who are having learning difficulties in the classroom.				
2	Assessing students to assign grades or make judgments about their overall academic performance				
3	Collecting assessment information about students' academic progress for providing				

	feedback and to motivate them				
4	Assessing students' entry behavior or background with regard to their ability, interest and degree of social interaction.				

Generally, providing relevant instruction by integrating subject matter with the instructional methods into planned teaching – learning activities to help students realize the desired learning outcomes is a must. At this point the above-mentioned assessment devices have decisive role in assessing /evaluating/ the performance of students in the teaching – learning process.

6.2.1 **Placement Assessment:**

It is highly concerned with investigating students' entry/behavior (educational background) and typically focuses on questions such as the following:

a) Does the student possess the knowledge and skills needed to begin the planned instruction?

b) To what extent has the student mastered the objectives of the planned instruction?

Answers to these questions require the use of a variety of techniques: readiness tests, aptitude tests, pre – tests on course objectives etc. Placement assessment of students usually takes place prior to the presentation of instruction and it provides information useful to plan learning activities (Dembo, 1994; Airasian, 1991; Gronlund, 1981; Ebel, 1979; and Thorndike, et. al, 1977).

Example A:

An instructor, may divide students into sub groups like reading group, math group, science group, or study group etc.

An instructor, may also divide his/her students into ability groups such as slow, average, or fast students. So also, identifying students who scored below a cutoff point in a mid- exam to remedial group. Note that placement decisions are made for either academic or social reasons.

5.2.2 **Formative Assessment (Assessment FOR learning)**

According Nitko, (2004), Gronlund (2003) Sax (1997) and Airisian (1991) formative assessment belongs to continuous assessment that focuses on monitoring learning progress and diagnosing learning difficulties while a teaching learning process is under taking. It ensures a healthy acquisition and development of knowledge and skills by students. It helps to identify students' needs and problems in order to take appropriate remedial measures in the learning process. There are different formative assessment techniques that can be used by instructors for getting information about their students and the effectiveness of their teaching. These include the following informal assessment techniques:

□ □ □ □ □ □ □ □	Observation Oral questions Listening Portfolio Reflection Self, peer and group assessment Quizzes (oral and written) Assignments		□ □ □ □ □	Class-work/ Homework Group-work Tests (if graded but used for feedback purposes) Interview Demonstration Report writing
□	Presentation, etc.			

Favoring the above view, Dembo (1994) and Airasian (1991), profoundly stated that formative assessment is a formulation of an individual's strengths, weaknesses, and potential. It is mostly used to guide learning during the instructional process. It helps to guide and make their work meaningful. It provides on going feedback to student and instructors, regarding success or failure in which specific learning errors could be corrected and the student is motivated for further learning activities.

By the same token, Ogunniyi (1984) emphasized that instructor, as being the best evaluator of his/her students will be able to:

- make a reliable inference about his/her students better than an external assessor;
- identify the level of his/her students' cognitive level;
- select the best suitable teaching techniques and materials;

- determine the applicability of a program within the classroom setting; and also,
- determine areas needing modification or improvement in the teaching – learning process;

Moreover, Assessment **For** learning is formative assessment, which is an integral part of the instruction process; it clarifies for students what is to be learned; Gives useful and timely feedback; and helps students to identify the next steps they need to take'

Formative assessment depends on prepared tests for each segment of instruction (e.g. Unit/ chapter). These tests are mastery tests that provide direct measure of intended learning outcomes of the segment. In addition to, informal observations being supplemented by class – work, home take assignments, work sheets, quizzes, and mid – tests serve this purpose. Observation practically plays a primary role to gather information without interrupting classroom activities (Nitko 2004; Airasian, 1991; Gronlund, 1981; and Thorndike, et. al, 1977).

Example B:

An instructor, may praise or blame his/her students for scoring high or low mark in a mid-test. He/she identifies what is mastered from what is not.

An instructor, may revise his/her approach (method) of assessing his/her students' attention to the lesson based on the performance of students with regard to class work, homework, informal observation etc. An instructor, may provide feedback (incentive) to the students by preparing remedial classes.

5.2.3 **Diagnostic Assessment**

It is concerned with the persistent or recurring learning difficulties that are left not resolved by the corrective prescriptions of formative assessment. Perhaps formative assessment provides first aid treatment for simple learning problems, and diagnostic assessment searches for the underlying or the root causes of the problem. Therefore, diagnostic assessment is much more comprehensive. It uses specially prepared diagnostic tests as well as various observational techniques. Lastly, its aim is to find out the real causes of learning problems to formulate a plan for remedial action (Nitko. 1996; Capper, 1996; Gronlund and Linn, 1996; and Airasian, 1991).

Example C:

A student may experience a continuous failure in reading, mathematics, science, be inattentive or lack interest for learning. An instructor therefore, needs to identify the problem, document its frequency, understand its basis, and select remedial activities. The instructor, can carry out the remedial activities needed, but at other time the student may be referred for more specialized diagnosis.

5.2.4. Summative Assessment (Assessment OF learning)

Summative assessment happens after the learning takes place; Information is gathered by the instructor; Information is usually transformed into marks or grades; looks back on past learning;

It is given especially at the end of a course or semester of instruction. It designed to determine the extent to which instructional objectives have been achieved. Furthermore, it deals with the purposes, and outcomes of the teaching – learning process. Summative assessment as the name suggests, it is a final summing up and judgmental which is commonly made on the basis of written examinations, tests, ratings on different kinds of performances (e.g., reading, writing, listening, speaking, laboratory work, etc.,), and assessment of products (e.g., drawing, research report). It is used for grading, promoting, and certifying purposes. It is also useful for providing information based on the assessment of the effectiveness of a program of instruction (Gronlund, 2003; Dembo, 1994; and Airisian, 1991).

Example D:
At the end of course or semester instructors in higher education institutes prepare final examinations for courses to be administered officially. After administering, scoring and interpretation and grading takes place. Finally, instructors judge the success of instruction at the end or recommend about overall students certification, promotion or placement.

Note: Formative and summative assessments are the most commonly employed approaches in our situation. Let us here summarize their characteristics shortly in the table below.

Character	Formative	Summative
Purpose	To monitor and guide a process while it is in progress	To judge the success of a process at its completion (or end)
Time of Assessment	During the process	Mostly at the end of the process
Type of Assessment Techniques	Informal observation, mid tests, quizzes, class works, homework, work sheets, etc.	Formal tests / exam, projects, and term papers.
Use of Assessment Data	Improve and change a process while it is in progress	Judge the overall success of a process; grade, certify, promote.

5.3. Levels of Classroom Assessment

Dear trainees, are you aware of the levels of classroom assessment?

Student's assessment could be carried out at three levels: at the start, during the process of learning, and towards the end. Some of the guiding questions, methods, and tasks to be developed are indicated in the following chart.

Level	Guiding questions	Methods	Tasks
At the start	What are the learning needs of the participants as derived from their entry level, personal expectations, previous experience, and attitudes towards studying	• Interview • Group discussion • Testing	• Use informal observation prepare interview guide and administer • Animate discussion • Prepare and apply test

During the process	• Are the students making progress as desired? What are the factors affecting the learning process? • Are the teaching methods and materials appropriate? • Are they satisfied with the program?	• Questioning • Group discussion • Testing • Review of assignments • Selfevaluation	• Prepare and apply tests and observation schedule • Prepare and keep record forms • Animate orientation for keeping diaries
Toward the end	Have the student attained the desired objective Are they satisfied with the program as a whole	• Testing • Observation • Group discussion □ Selfevaluation	• Prepare and apply tests • Prepare and apply observation schedules • Animate discussion and dialogue

5.4. Characteristics of Continuous Assessment

Dear trainees, what characterizes continuous assessment?

Assessment may be more effective if it is applied by considering the existing conditions of students (i.e., the age, entry behavior, attention span, knowledge or capability level, and personality characteristics). As a pedagogical means and as an aspect of the curriculum process, continuous assessment should be:

a) *Systematic*: It requires careful planning in order to collect data systematically about all aspects of behavior of the school system at different periods. There are three levels at which an instructor, can make assessment in the classroom. That is, for example, at the beginning, during the process and at the end of the instructional process in a lesson. And also to make sizing up assessments at the beginning of the school year and official assessments at the middle and end of semesters.

b) *Comprehensive*: It should be carried out in different forms using formal (i.e. end-of unit tests, mid and final written tests, provision of project works,) and informal assessment methods (i.e., oral questioning, identifying the muddiest point of a daily lesson, asking students to write a one minute one or two sentences, using student generated questions, talking to students, listening to students responses, rating scales, checklists, Interview etc.) to collect

information about students' intellectual activities, performance skills and personality characteristics.

c) *Cumulative*: for making meaningful decisions about student's overall achievement in academics, the assessment procedure should be a continuous activity. It should not be viewed as a one-shot activity. It is neither an on-off nor unit-directional procedure; rather, it is expected to involve collecting data of different types at varying time on a continuous basis to make cumulative judgment on the student's performance.

d) *Objective*: The assessment procedure, be it formal or informal has to be closely related to the objectives of instruction. Besides, the assessment tools that are going to be used have to allow objective scoring and interpretation.

e) *Guidance – Oriented:* The continuous assessment information should be used as a means of providing feedback to students' strengthens and weakness. Specifically the feedback has to focus on areas of learning objectives and contents that are not mastered. Instructors, will have the opportunities to analyze their performance (i.e., their lesson presentation, effectiveness of the teaching methods used, selection of appropriate learning materials, etc.).

5.5. Planning Tests

Dear trainees, what preliminary conditions should be given attention by you in planning a test?

There are four main pre – conditions to be fulfilled in planning the test

i) The purpose of the test should be determined.

ii) The instructional objectives should be out lined.

iii) The contents imparted (taught) in the course or subject should be outlined in relation to the time spent and emphasis given.

iv) Table of specification should be developed.

5.5.1. The purpose of the test should be determined:

Regarding this, one has to ask about the purpose of the test.

- Is it to make instructional decision as to what to teach?
- Is it to assess learning readiness of students?
- Is it for evaluating learning progress?

- Is it to identify learning difficulties?
- It is assign students according to their abilities? etc.

Therefore, determining the purpose of a test is the first step in planning.

5.5.2. The instructional objectives should be out lined:

Instructional objectives can be defined as statements that describe the behaviors students can perform after instruction. It is clear that the real purpose of instruction is to change students' behavior and enable them perform what they could not do before instruction. They are included in an instructor's session/lesson plans as statements that describe behaviors or performance of students to be learnt through instruction. Instructional objectives could be named as "learning objectives", "performance objectives", behavioral objectives", or "learning outcomes". In the instruction process, behavioral objectives serve the following important functions.

- They identify intended students outcomes;
- They help to plan the construction of assessment techniques to determine what students have learned;
- They help to select appropriate instructional methods, materials, and activities;
- They help to communicate parents, students, administrators or others what is expected of the student.

Note that all instructional objectives or learning behaviors could be classified into one of the three categories called the cognitive, affective, or psychomotor domain.

Activity 5:

Directions: Classify the behaviors stated below into one of the three domains (i.e., Cognitive, Affective, and Psychomotor). Please use a "□" mark.

No.	Behaviors	Cognitive	Affective	Psychomotor
1	Reasoning, thinking, memorizing, problem solving etc.,			
2	Interest, attitudes, preferences, motivation etc.,			
3	Physically related motor skills			
4	Mastery of some content of a subject			

5	Playing sport, setting up equipment in a lab., typing, driving, holding a pencil, etc.,			
6	Analyzing, interpreting, reading with good comprehension, applying formula, etc.			
7	A Varity of "Self – help" skill for special needs individuals			
8	Commonly assessed in higher education institutes			
9	Rarely assessed formally in Higher education institutes			
10	Informally assessed by instructors for many reasons			

Generally behaviors in the cognitive domain are intellectual activities. Most of the tests which are prepared in higher education institutes are intended to measure cognitive behaviors (i.e.,
remembering, understanding, applying, analyzing, evaluating, and creating)

Example A:
Tests on mastery of subject area: spelling tests; oral recitation of a memorized poem; test on mathematical problems, intelligence or mental abilities, etc., are assessments of cognitive behaviors.

A second domain of behaviors is the affective domain. Affective behaviors are all internal personality characteristics of an individual. They are covert behaviors. For example, interest, attitudes, motivation, values, beliefs, convictions, self – control, feeling, emotional stability etc. belong to affective domain. They are not as such objectively tested in Higher education institutes. However, instructors gather information in these behaviors mostly with the help of informal observation.

Example B:
Instructors may wish to know about those who are interested or not in science, language, mathematics, social studies or music. Those who have negative or positive attitude to learning; those who are intrinsically or extrinsically motivated; those who have self – control and those who need other's supervision etc.

The third domain of behavior is the psychomotor domain which includes behaviors of physical skills and manipulative in nature. Psychomotor behaviors are important at all levels of Higher education institutes on most learning tasks that require motor coordination. Tests of performance are highly applicable to measure such skills.

Example C:
An instructor, may test students to assess their reading, listening, writing, operating, and calculating, classifying, manipulating skills of varying types.

When planning what to test, it is highly important to give attention to the points stated below

a) The chapter or unit objectives (i.e., the intended or planned instruction) should be:
    - stated in terms of student behavior;
    - written with and action verb;
    - stated in terms of observable changes in behavior;
    - stated possibly in terms of agreed meanings;
    - related to only one process at a time;
    - stated at an appropriate level of generality; and Realistic in a given context.
b) The actual instruction that was delivered (i.e., the implemented objectives and curriculum), and
c) What has been understood by the students (i.e., the achieved objectives and curriculum)

It is clear that instruction tends to reflect the intended curriculum objectives. However, due to many circumstances, say for example, students' ability, their readiness, classroom conditions, availability of resources, textbooks, time etc., may not allow the higher education institutes and specifically the instructor to implement the intended objectives. He/she may omit, add, or revise some objectives once the teaching has started. Besides, what has been implemented may not be totally absorbed by the students as required due to individual

variations (i.e., educational background, interest, learning potential, attitude, study habits, etc.).These situations imply that *the things that were actually presented during instruction (implemented) and what has been actually achieved by the students are more important in deciding what to test than the things that are planned to be taught (*Gronlund, 2003; Keeves, 1994; and Airasian, 1991).

Thus, the implemented and achieved objectives and corresponding curriculum contents should be outlined taking into account the above-mentioned points. In addition, the following points should be considered while developing the test blue print.

i. Do we give equal emphasis to all what was taught or weigh something more highly than others. This of course depends on two factors

- the importance of each learning objectives, and
- the instructional time spent on each objective (or sessions to cover each topic or subtopic) *ii. Type of test items to be included in the test. They are selected on the basis of learning objectives to be measured.*
- If you wish to measure simple – learning outcomes (knowledge and understanding) you can use True – False, matching, short answer, completion, and multiple-choice items;
- If you wish to measure complex learning outcomes (i.e., application, analysis, synthesis or evaluation) we can use multiple-choice and essay items.

iii. How long the test should be

The length of a test (i.e., number of items to be included in the test) depends on

- *The age and attention span of the students:*

So a useful strategy to follow with higher education institutes students is to administer a large comprehensive test that covers many topics. The attention span also limit the length of time one can devote to a test. Generally the length of testing time increases in in higher institutes and colleges.

- *The type of test items*

  Generally, supply/essay items require longer time for thinking and constructing responses than selection items, which need simple choice from the given options. For instance, essay questions require planning and thinking time before the actual writing. Therefore, their number should be few in a test than any other selection items (Airisian, 1991).

5.5.3. Developing a Table of Specification

Dear trainees, what do you know about table of specification?

Taking into consideration the points mentioned earlier, preparing a table of specification is essential. It is a two-way chart or grid that involves objectives along the vertical axis and the content along the horizontal axis. The former is concerned with the types of performance students are expected to demonstrate (i.e., knowledge, comprehension, and application etc.,) and the latter with the topics to be learned. There are two forms of table of specifications.

Table of specification by objective

Let us see one example

i. Course: Educational Assessment & Evaluation Semester: one ii. Purpose of the test

- To monitor students' learning progress (achievement purpose);
- To identify if they have any learning difficulties;
- To provide feedback on methods and techniques of instruction;

Table of specification for the chapter on "Classroom Assessment" by objectives

No	Content area	Instructional Objectives					
		Remembering	Understanding	Identifying relationship	Elaborating	Application	Total
1	Definition of terms	2	2	-	-		4
2	Purposes of assessment	2		-	-	-	2
3	Methods of assessment	1	2	-	2	1	6
4	Levels of assessment	-	1	5	-	1	7
5	Planning a test	1	1	-	5	-	7

7	Total	6(20%)	6(20%)	5(16.67 %)	7(23.67 %)	8(26.6 7%)	30

In the table above, the proportion of test items to be devoted to the respective objectives and contents are indicated. In the bottom raw of the table, it is shown that 20 % of the items are to be constructed to knowledge of terms and facts, 20% to understanding, and so on across the bottom raw. On the other hand, the right hand column shows that 13.3% of the items are concerned with "Definition of terms", 20% with "Purposes of assessment: 13.3% with methods of assessment" and "Levels of assessment" respectively and so on down the column. Each cell within the table indicates the percentage of test items to be devoted to the objectives and content area that are opposite the cell. For instance, the number "1" in the cell in the upper left-hand corner indicates that 1% of the test items should be concerned with "knowledge of common terms" in the "definition of terms". The number in the other cells within the table should be understood in the same way.

Table of specification on "Classroom Assessment" by item types

No.	**Content areas**	**Item types**					
		True/false	**Matching**	**Completion items**	**Multiple choice items**	**Essay items**	**Total**
2	Definition of terms	2	-	-	2	-	4
3	Purposes of assessment	1		2	2	1	6
4	Methods of assessment		5	1	1	-	7
5	Levels of assessment	2	-	1	4	-	7
6	Planning a test	1	-	-	4	1	6
7	Total	6	5	5	12	2	30

5.6. Principles in Test Construction:

Dear trainees, what principles should be considered in writing test items?

_____

Before starting to construct an item based on the prepared test blue print, major principles of test construction stated below should be given attention. (Nitko, 2004; Gronlund, 2003; Thorndike, et. al., 1977; Ebel, 1979)

- ✓ A test should measure clearly defined learning objectives
- ✓ A test should measure a representative sample of the learning tasks included in the instruction;
- ✓ A test should include the types of test items that are most appropriate for measuring the desired learning outcomes;
- ✓ A test should fit the particular uses that will be made of the result;
- ✓ A test should be reliable for accurate interpretation
- ✓ A test should improve learning

5.6.1. Quality of a Good Test

1. *Reliability*: degree of consistency among test scores (e.g., high score in one test would mean high score on another test)
2. *Validity*: Measuring what it is intended to measure; appropriateness for the purpose planned.
3. *Objectivity*: Free from possible variations due to extraneous factors (is the test free from ambiguity?)
4. *Fairness*: Unspecified expectations and verbal tricks are unethical in testing situation
5. *Practicality*: Administering and scoring ease, availability of the needed supplies and facilities

5.6.2. Test items Characteristics and Preparation

Dear trainees, can you identify test item types you are familiar with?

_____

Instructors are usually expected to use two key instruments to gather information about their students' performance and/or achievement. The first technique involves the use of *Tests*, and the second involves the use of *observational techniques* (Nitko, 2004; Gronlund, 2003; Airasian, 1991; and Gronlund & Linn, 1990).

Tests can be either *instructor-made or standardized.* Let us summarize their characteristics in the table below.

	Tests Types	
	Instructor-made tests	**Standardized tests**
Purpose	Assessing learning outcomes intended for specific purpose	Assessing general ability, attitudes and learning outcomes throughout of different levels of schooling
Examinees and test taking situation	A single group of students at a single point in time	Administered, scored, and interpreted in the same way across different groups for comparison
Procedure	No definite administering, scoring, and interpreting	Administered, scored, and interpreted in the same way across different groups for comparison
Prepared by	By instructors mostly	Companies or organization consulting test specialists, curriculum experts and skilled instructors
Example	Mostly classroom tests and unpublished tests	Mostly published tests such as scholastic aptitude tests, Intelligence tests, Achievement tests, etc.,
Item Format	Mostly True–False, matching, supply, multiple choice items	Mostly multiple choice, pictorial items

Tests are of two general forms: Objective/Selection tests and Subjective/Constructed tests.

Activity 6:

Directions: Which of the following test characteristics belongs to either subjective or selection format. Use a "□" Mark.

No.	Test characteristics	subjecti ve test	Selectio n test
1	The examinee constructs a response to a question		
2	Provide pre – determined responses (or answers)		

3	Cover a limited range of contents in a single test (small sample of topics)		
4	Cover a wide range of contents in a single test (broad sample of topics)		
5	Many items can be prepared to measure specific skill (many items must be constructed)		
6	Very limited number of items can be set (few questions are needed)		
7	Items are highly structured, and time consuming to construct, but easy to score		
8	Lessens chance of guessing		
9	Relatively easy of preparation, and time consuming to score		
10	Use restricted or unrestricted item types (i.e., short answer, completion, or essay)		
11	Use item types such as True – False, matching, and multiple – choice		
12	Provide a better picture of performance across a curriculum		
13	Guessing is a problem		

There are two general categories of test items: (1) objective items which require students to select the correct response from alternatives or to supply a word or short phrase to answer a question or complete a statement; and (2) subjective or essay items which permit the student to organize and present a written answer. Objective items include true-false, matching, completion and multiplechoice, while subjective items include restricted-response essay, extended-response essay and performance test items. For some instructional purposes one or the other item types may be more appropriate and efficient.

Activity 7: Quiz

Directions: Evaluate your experience of objective versus essay exams by answering the following questions.

(circle the correct answer)

1. Essay exams are easier to construct than are objective exams. T F
2. Essay exams require more thorough student preparation and study time than objective exams. T F
3. Essay exams require writing skills where objective exams do not. T F
4. Essay exams teach a person how to write. T F
5. Essay exams are more subjective in nature than are objective exams. T F
6. Objective exams encourage guessing more than essay exams. T F
7. Essay exams limit the extent of content covered. T F
8. Essay and objective exams can be used to measure the same content or ability. T F
9. Essay and objective exams are both good ways to evaluate a student's level of knowledge. T F

Quiz Answers

1.	TRUE	Essay items are generally easier and less time consuming to construct than are most objective test items. Technically correct and content appropriate multiplechoice and true-false test items require an extensive amount of time to write and revise. For example, a professional item writer produces only 9-10 good multiple-choice items in a day's time.
2.	?	According to research findings it is still undetermined whether or not essay tests require or facilitate more thorough (or even different) student study preparation.

3.	TRUE	Writing skills do affect a student's ability to communicate the correct "factual" information through an essay response. Consequently, students with good writing skills have an advantage over students who have difficulty expressing themselves through writing.
4.	FALSE	Essays do not teach a student how to write but they can emphasize the importance of being able to communicate through writing. Constant use of essay tests may encourage the knowledgeable but poor writing student to improve his/her writing ability in order to improve performance.
5.	TRUE	Essays are more subjective in nature due to their susceptibility to scoring influences. Different readers can rate identical responses differently, the same reader can rate the same paper differently over time, the handwriting, neatness or punctuation can unintentionally affect a paper's grade and the lack of anonymity can affect the grading process. While impossible to eliminate, scoring influences or biases can be minimized through procedures discussed later in this booklet.
6.	?	Both item types encourage some form of guessing. Multiple-choice, true-false and matching items can be correctly answered through blind guessing, yet essay items can be responded to satisfactorily through well written bluffing.
7.	TRUE	Due to the extent of time required by the student to respond to an essay question, only a few essay questions can be included on a classroom exam. Consequently, a larger number of objective items can be tested in the same amount of time, thus enabling the test to cover more content.
8.	TRUE	Both item types can measure similar content or learning objectives. Research has shown that students respond almost identically to essay and objective test items covering the same content. Studies by Sax & Collet (1968) and Paterson (1926) conducted forty-two years apart reached the same conclusion: "...there seems to be no escape from the conclusions that the two types of exams are measuring identical things." (Paterson, p. 246)

9.	TRUE	Both objective and essay test items are good devices for measuring student achievement. However, as seen in the previous quiz answers, there are particular measurement situations where one item type is more appropriate than the other.

When to Use Essay or Objective Tests

Essay tests are especially appropriate when:

- The group to be tested is small and the test is not to be reused.
- You wish to encourage and reward the development of student skill in writing.
- You are more interested in exploring the student's attitudes than in measuring his/her achievement.
- You are more confident of your ability as a critical and fair reader than as an imaginative writer of good objective test items.

Objective tests are especially appropriate when:

- The group to be tested is large and the test may be reused.
- Highly reliable test scores must be obtained as efficiently as possible.
- Impartiality of evaluation, absolute fairness, and freedom from possible test scoring influences (e.g., fatigue, lack of anonymity) are essential.
- You are more confident of your ability to express objective test items clearly than of your ability to judge essay test answers correctly.
- There is more pressure for speedy reporting of scores than for speedy test preparation.

Either essay or objective tests can be used to:

- Measure almost any important educational achievement a written test can measure.
- Test understanding and ability to apply principles.
- Test ability to think critically.
- Test ability to solve problems.
- Test ability to select relevant facts and principles and to integrate them toward the solution of complex problems.

In addition to the preceding suggestions,

- It is important to realize that certain item types are **better suited** than others for measuring particular learning objectives. For example, learning objectives requiring the student **to demonstrate** or **to show**, may be better measured by performance test items.
- Objectives items require the student **to explain** or **to describe** may be better measured by essay test items.
- The matching of learning objective expectations with certain item types can help you select an appropriate kind of test item for your classroom exam as well as provide a higher degree of test validity (i.e., testing what is supposed to be tested).

Checklist for Evaluating Test Items

True-False Test Items

- Base true-false items upon statements that are absolutely true or false, without qualifications or exceptions.
- Express the item statement as simply and as clearly as possible.
- Express a single idea in each test item.
- Include enough background information and qualifications so that the ability to respond correctly did not depend on some special, uncommon knowledge.
- Avoid lifting statements from the text, lecture or other materials.
- Avoid using negatively stated item statements.
- Avoid the use of unfamiliar language.
- Avoid the use of specific determiners such as "all," "always," "none," "never," etc., and qualifying determiners such as "usually," "sometimes," "often," etc.

Matching Test Items

- Include directions which clearly stated the basis for matching the stimuli with the response.
- Explain whether or not a response could be used more than once and indicate where to write the answer.
- Use only homogeneous material.
- When possible, arrange the list of responses in some systematic order (e.g., chronologically, and alphabetically).
- Avoid grammatical or other clues to the correct response.
- Keep items brief (limit the list of stimuli to under 10).
- Include more responses than stimuli.

- When possible, reduce the amount of reading time by including only short phrases or single words in the response list.

Completion Test Items

- Omit only significant words from the statement.
- Don't omit so many words from the statement that the intended meaning was lost. Avoid grammatical or other clues to the correct response.
- Include only one correct response per item.
- Make the blanks of equal length.
- When possible, delete the words at the end of the statement after the student was presented with a clearly defined problem.
- Avoid taking statements directly from the text, lecture or other sources.
- Limit the required response to a single word or phrase.

Multiple-Choice Test Items

- When possible, state the stem as a direct question rather than as an incomplete statement.
- Present a definite, explicit and singular question or problem in the stem.
- Eliminate excessive verbiage or irrelevant information from the stem.
- Include in the stem any word(s) that might have otherwise been repeated in each alternative.
- Use negatively stated stems sparingly. When used, underline and/or capitalize the negative word(s).
- Make all alternatives plausible and attractive.
- Make alternatives grammatically parallel with each other, and consistent with the stem.
- Make the alternatives mutually exclusive.
- When possible, present alternatives in some logical order (e.g., chronologically, most to least).
- Make sure there was only one correct or best response per item.
- Make alternatives approximately equal in length.
- Avoid irrelevant clues such as grammatical structure, well known verbal associations or connections between stem and answer.
- Use at least four alternatives for each item.

- Randomly distribute the correct response among the alternative positions throughout the test having approximately the same proportion of alternatives a, b, c, d, and e as the correct response.
- Don't use the alternatives "none of the above" and "all of the above" at all.

Essay Test Items

- Prepare items that elicit the type of behavior you wanted to measure.
- Phrase each item so that the student's task is clearly indicated.
- Indicate for each item a point value or weight and an estimated time limit for answering.
- Ask questions that elicit responses on which experts could agree that one answer is better than others.
- Avoid giving the student a choice among optional items.
- Administer several restricted-essay items than 1 or 2 extended-response items.

Grading Essay Test Items

- Select an appropriate grading model. Either Analytic or Global quality
- Try not to allow factors which are irrelevant to the learning outcomes being measured to affect your grading (e.g., handwriting, spelling, neatness).
- Read and grade all class answers to one item before going on to the next item. (Grade question by question rather than student by student)
- Read and grade the answers without looking at the student's name to avoid possible preferential treatment.
- Occasionally shuffle papers during the reading of answers.
- When possible, ask another trainees, to read and grade your students' responses.

5.7. Grading System

Dear trainees, what do you know about grading system? Test interpretation

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There are many comparisons that can be used when interpreting and grading learner's assessment.

The most common bases for comparison used in classrooms are

- The performance of other students
- Pre-determined standards of quality (Criteria)
- Pupil's ability or prior performance (improvement)

Many instructors usually use one of the first two types of comparison in assigning grades to their students. The first type is associated with norm – referenced assessments while the latter with criterion – referenced assessment.

5.7.1. Criterion and Norm Referenced grading system

What are the similarities and differences of Criterion –and-Norm Referenced Tests in terms of grading system?

A. Norm Referenced Assessment

Norm-referenced tests are defined as those tests constructed in such a way that they provide a measure of attainment or performance that is interpretable in terms of relatives standing with respect to some known group of assumed "equivalence". A norm-referenced test is described to ascertain an examinee's status in relation to the performance of a group of examinees that have completed the test. The norm group refers a group of students who have taken the test a little bit earlier (Gronlund, 1982; Airisian, 1991).

Example: In a class, if Alemayehu's aggregate result from different assessments and tests is 40% out of 100, and if no other student got above, then his score (40%) is an "A" grade, though it is under the minimum achievement level (50%).This designates that norm-referenced grading system doesn't tell the actual performance or achievement of the student.

B. Criterion – Referenced Assessment

They are mastery tests that are used to identify who have and who have not acquired certain basic skills and competencies. Criterion – referenced tests are designed to produce a certain description of what an examinee's performance on the test actually mean in relation to the pre-determined learning outcomes.

Criterion-referenced tests are closely related to the behavioral objectives. Present thinking tends to stress the value of criterion-referenced approaches to norm-referenced assessment.

Example

You can set criteria to grade and interpret test result

- Typing 60 words with no error in three minutes
- Multiplying three –digit rational numbers
- Using a cut off score of 50% **Similarities of NRT and CRT**

1. Both CRT and NRT are tests of maximum performance and are useful in educational measurement and testing
2. Objectives and contents need to be specified in both tests
3. The items on both CRT and NRT need to be relevant and should be a representative of what was intended to be measured
4. Both CRT and NRT can use the same type of test items with respect to item formats. Note that these days our universities use a criterion-referenced grading system to grade their students' achievement as follows:

A+= ≥90		C+= ≥60
A= ≥ 85		C= ≥ 50
A-= ≥ 80		C-= > 45
B+= ≥ 75		D= ≥ 40
B= ≥ 70		Fx= ≥ 30
B-= ≥ 65		F= < 30

Source: ETA

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Unit Six: Instructional Planning

Unit description

Instructional planning is the most important steps for effective implementation of the intended task in teaching profession. In order to bring a desired behavioral change in the learner, it requires careful and conscious planning of the instruction. Hence, this unit deals with the concept and rationale for instructional planning, the elements of instructional plan, its preparation, setting learning objectives and taxonomy of learning outcomes.

Unit objectives

At the end of this unit, trainees will be able to:

- Explain the concept of instructional planning
- Identify elements
- Justify the reason for having instructional plan
- Prepare course and session plans
- Write smart objectives
- distinguish the classification of learning outcomes
- Appreciate the role of instructional planning on effective teaching and learning

6.1. Conceptualizing Instructional Planning

6.1.1. What is planning?

Planning is the systematic process of establishing a need and then working out the best way to meet the need, within a strategic framework that enables you to identify priorities and determines your operational principles. Planning means thinking about the future so that you can do something about it now. This doesn't necessarily mean that everything will go according to plan.

It probably won't. But if you have planned properly, your ability to adjust, without compromising your overall purpose, will be that much greater.

Instructional planning

Activity 1:

- Based on the definition of planning given above, how do you explain instructional planning?
- What points will be considered in planning for instruction?

Effective instructional planning focus on providing answers for the following basic questions of delivering instruction before the course/instruction begins;

- ❖ Why to teach?
- ❖ What to teach?
- ❖ How much to teach?
- ❖ How to teach?
- ❖ Who do what?
- ❖ With what to teach?
- ❖ Whom to teach?
- ❖ When to teach?
- ❖ Where to teach?
- ❖ How to check the actual results of teaching and learning?

Activity

- Discuss and reflect the kind of answers each questions seek and justify why it is important to think about them before instruction?

6.2. Rationale for instructional planning

Activity

 Dear trainees, why do you think higher education institution instructors are advised to plan for instruction?

Literature shows the following merits of having a plan:

- ➢ Enable instructors to manage the time allotted for the course and session

- Helps to deliver a well-structured/organized lesson
- Gives a definite direction for our lesson and avoids crisis in the classroom;
- Develops more confidence for teachers and students;
- Helps for better classroom management and proper control of students' discipline;
- Fixes the direction of teaching-learning process; Enables to anticipate the implementation of activities; helps the attainability of instructional objectives, etc.

In general, instructional planning benefits both the teacher and students because the result is better integration of method and learning activities, better use of time, reduction of uncertainty, better motivation for and involvement in learning and thereby greater achievement and satisfaction.

6.3. Preconditions for instructional planning

Activity 2:

- What factors should be considered before engaging in the preparation of instruction plans?
- How they determine/influence the process of instructional planning?

Any kind and level of instructional planning requires a certain degree of information concerning those factors having direct connections and impacts with the plan and its purposes. Among these, the following are basic ones.

A. ***Knowing the learner:*** Students are partners in the teaching-learning process having important contributions. Therefore, teachers should study and well understood their students in terms of their previous experience, physiological, psychological, intellectual level/ maturity/. In addition, understanding the interests, needs and problems of students as a whole with no discrimination becomes very important.

B. ***Knowing the institutional context:*** This is another concern of a teacher that should be studied and understood well while planning instruction. Within a given social, economic and geographical environment, universities may have

their own regulations, infrastructure, educational technologies and other resources. So, they can influence your plan.

C. **Knowing the subject matter:** The more the teacher has profound subject matter knowledge, the easier his/her teaching task will be. Here, we should not forget the need to update our previous knowledge. Because; we are living in a vastly changing world. Subject matter knowledge by itself is of course not enough. Teachers are expected to have the knowledge and ability to apply different teaching-learning methods and also the proficiency to employ varied types of assessment tools in a continual manner.

Preparation of instruction plan is not an easy task, but when appropriate materials are put in place, the task becomes very simple. Some of the preconditions are listed hereunder.

- You should think and consult the current scheme of work for the topic
- You should think out the objectives of the course/lesson
- You should consult reference books and textbooks
- You should organize and assemble materials needed for the lesson in logical sequence
- You should decide on the teaching aids to use
- You should think of the most suitable methods of teaching to use
- You should think of the subject matter and questions required at each stage of the lesson
- You should ensure accuracy and adequacy of facts.
- You should think of provision for individual differences in learning.
- With all the above, you have a very clear mental picture of the lesson plan

6.4. Levels of Instructional planning in

Instructional plans can be made at course, unit, and session levels and having a plan at each level is very crucial to deliver effective instruction. However, in this module instructional planning at course and session level will be emphasized and discussed.

6.4.1. Course planning

Course planning is one of the major tasks QCinstructors should engage before starting the course offering. At this stage, the main purpose of planning is to decide how the given course will be offered within the given time by maintaining its quality. Begin the process early, giving yourself as much time as you can to plan a new course. Successful courses require careful planning and continual revision. Consult with colleagues who have taught the same or similar courses to learn from their strategies and their general impressions of the students who typically take the course. If you are team-teaching, you and your teaching partner(s) should begin meeting well in advance to discuss course goals, teaching philosophies, course content, teaching methods, and course policies, as well as specific responsibilities for each instructor.

Activity 3:

- Do you have any prior experience in course planning?
- Do you see difficulties in preparing a course plan? If so, what are they? How can they be tackled?

6.4.1.1. Components of a Course Plan

The following are the basic elements that need to be incorporated into a course plan.

1. **Background information** about the course/module such as course/module title, course code, schedule, etc.
2. **Course/module description**: Here you are expected to provide a general overview of the course/module such as coverage of the course.
3. **General objectives of the course**: Here you are expected to state what your students are expected to achieve as a result of attending the course.
4. **Contents of the course**: Course contents enable us to maintain the given objectives. Hence, you are expected to list down each unit, topic and sub topics of the course.

5. **Approach/Methodologies to the course**: In this part of the course plan, different strategies, techniques or methods of treating the course are presented.
6. **Instructional materials:** Indicating the materials to be used in the instructional process such as laboratories, intelligent boards, ICT facilities, objects and etc.
7. **Course/module Requirements**: Stating what is expected of students to complete the given course/module. For example, indicating the required project work to be undertaken, course attendance, etc.
8. **References**: Listing reference materials to be used by students during the course.

6.4.2. Session planning

A session plan is the instructor's road map of what students need to learn and how it will be done effectively during the class time. Then, you can design appropriate learning activities and develop strategies to obtain feedback on student learning. Having a carefully constructed session plan for each single lesson allows you to enter the classroom with more confidence and maximizes your chance of having a meaningful learning experience with your students.

A successful session plan addresses and integrates the following key components:

- Learning Objectives
- Contents
- Learning activities
- resources
- Assessment to check for student understanding

A session plan provides you with a general outline of your teaching goals, learning objectives, means to accomplish them, and is by no means exhaustive. A productive session is not one in which everything goes exactly as planned, but one in which both students and instructor learn from each other.

6.4.2.1. Steps for preparing a session plan

Planning for a session needs to consider important aspects of the lesson. In incorporating all the components of the session in the plan, the following steps have to be followed.

A. Identify the learning objectives

Before you plan your lesson, you will first need to identify the learning objectives for the lesson. A learning objective describes what the learner will know or be able to do after the learning experience rather than what the learner will be exposed to during the instruction (i.e. topics). Typically, it is written in a language that is easily understood by students and clearly related to the program learning outcomes. The table below contains the characteristics of clear learning objectives:

Characteristic	**Description**
Clearly stated tasks	Free from jargon and complex vocabulary; describe specific and achievable tasks (such as 'describe', 'analyse' or 'evaluate') NOT vague tasks (like 'appreciate', 'understand' or 'explore').
Important learning goals	Describe the essential (rather than trivial) learning in the course which a student must achieve
Achievable	Can be achieved within the given period and sufficient resources are available
Time bound	There has to be a time allotted/ time bound for the objectives to be attained
Demonstrable and measurable	Can be demonstrated in a tangible way; are assessable; achievement and quality of achievement can be observed
Fair and equitable	All students, including those with special needs have a fair chance of achieving them.
Linked to course and program objectives	Consider the broader goals - i.e. course, program and institutional goals.

This indicates, an objective in a session plan has to be SMART (specific, measurable, achievable, relevant and time bounded.

B. Plan the specific teaching and learning activities

When planning learning activities you should consider the types of activities students will need to engage in, in order to develop the skills and knowledge required to demonstrate effective learning in the course. Learning activities should be directly related to the learning objectives of the course, and provide experiences that will enable students to engage in, practice, and gain feedback on specific progress towards those objectives.

As you plan your learning 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. Some questions to think about as you design the learning activities you will use are:

- 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?

Many activities can be used to engage learners. The activity types (i.e. what the student is doing) by no means an exhaustive list, but will help you in thinking through how best to design and deliver high impact learning experiences for your students in a typical lesson.

It is important that each learning activity in the lesson must be (1) aligned to the lesson's learning objectives, (2) meaningfully engage students in active, constructive, authentic, and collaborative ways, and (3) useful where the student is able to take what they have learnt from engaging with the activity and use it in another context, or for another purpose.

C. Plan to assess students' understanding

Assessments (e.g., tests, papers, problem sets, performances) provide opportunities for students to demonstrate and practice the knowledge and skills articulated in the learning objectives, and for instructors to offer targeted feedback that can guide further learning.

Planning for assessment allows you to find out whether your students are learning. It involves making decisions about:

- the number and type of assessment tasks that will best enable students to demonstrate learning objectives for the lesson
- the criteria and standards that will be used to make assessment judgements
- student roles in the assessment process (self/peer assessment/
- the weighting of individual assessment tasks and the method
- the provision of feedback

D. Plan to sequence the lesson in an engaging and meaningful manner

Robert Gagne proposed a nine-step process called the events of instruction, which is useful for planning the sequence of your lesson. Gagne's 9 events in conjunction with Bloom's Revised Taxonomy of Educational Objectives (revised blooms) are very helpful in designing engaging and meaningful instructional plan.

i. **Gain attention**: Obtain students' attention so that they will watch and listen while the instructor presents the learning content.

- Present a story or a problem to be solved
- Utilize ice breaker activities, current news and events, case studies, and so on.
- The objective is to quickly grab student attention and interest in the topic

ii. **Inform learner of objectives**: Allow students to organize their thoughts regarding what they are about to see, hear, and/or do.

- Include learning objectives in lecture slides, the syllabus, and in instructions for activities, projects and papers
- Describe required performance
- Describe criteria for standard performance iii. **Stimulate recall of prior knowledge**:
- Help students make sense of new information by relating it to something they already know or something they have already experienced.
- Recall events from previous lecture, integrate results of activities into the current topic, and/or relate previous information to the current topic
- Ask students about their understanding of previous concepts

iv. **Present new content**: Utilize a variety of methods including lecture, readings, activities, projects, multimedia, and others.

- Sequence and chunk the information to avoid cognitive overload
- Blend the information to aid in information recall
- Bloom's Revised Taxonomy can be used to help sequence the lesson by helping you chunk them into levels of difficulty.

- **Provide guidance**: Advise students of strategies to aid them in learning content and of resources available. With learning guidance, the rate of

learning increases because students are less likely to lose time or become frustrated by basing performance on incorrect facts or poorly understood concepts.

- Provide instructional support as needed – as scaffolds (cues, hints, prompts) which can be removed after the student learns the task or content
- Model varied learning strategies – mnemonics, concept mapping, role playing, visualizing
- Use examples

v. **Practice**: Allow students to apply knowledge and skills learned.

- Allow students to apply knowledge in group or individual activities
- Ask deep-learning questions, make reference to what students already know or have students collaborate with their peers
- Ask students to recite, revisit, or reiterate information they have learned
- Facilitate student elaborations – ask students to elaborate or explain details and provide more complexity to their responses

vi. **Provide feedback**: Provide immediate feedback of students' performance to assess and facilitate learning.

- Consider using group / class level feedback (highlighting common errors, give examples or models of target performance, show students what you do not want)
- Consider implementing peer feedback
- Require students to specify how they used feedback in subsequent works

vii. **Assess performance**: To evaluate the effectiveness of the instructional events, test to see if the expected learning outcomes have been achieved. Performance should be based on previously stated objectives.

- Utilise a variety of assessment methods including exams/quizzes, written assignments, projects, and so on.

viii. **Enhance retention and transfer**: Allow students to apply information to personal contexts. This increases retention by personalising information.

- Provide opportunities for students to relate course work to their personal experiences Provide additional practice

E. Create a realistic timeline

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 in the lesson. Your list of prioritized learning objectives will help you make decisions on the spot and adjust your lesson plan as needed. 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 indicate 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 question 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

F. Plan for a lesson closure

Lesson closure provides an opportunity to solidify student learning. Lesson closure is useful for both instructors and students.

You can use closure to:

- Check for student understanding and inform subsequent instruction (adjust your teaching accordingly)
- Emphasize key information Correct students' misunderstandings
- Preview upcoming topics

Your students will find your closure helpful for:

- Summarizing, reviewing, and demonstrating their understanding of major points
- Consolidating and internalizing key information
- Linking lesson ideas to a conceptual framework and/or previously-learned knowledge Transferring ideas to new situations

There are several ways in which you can put a closure to the lesson:

- State the main points yourself ("Today we talked about…")
- Ask a student to help you summarize them
- Ask all students to write down on a piece of paper what they think were the main points of the lesson

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Sample Format for Planning A Session

_____University, College/Institute Of _____

Faculty /School Of _____

Instructor's name		Date:		
Department		Year/Semester:		
Course/module title		Course/module code:	Cr.hr/ECTS	
Topic:				
Number of students:	Male:	Female:	Total:	
General learning outcome:				
Specific learning outcomes:				
By the end of the session, the students will be able to				
I				
Ii				
Iii				
Iv				
Teacher's activities	Time	Students' activities	Assessment methods*	Resource **
Introduction Presentation Stabilization/consolidation				

Teachers Review/Reflection: **What worked well during the session:** **What need modification/change for next session:**

Adapted from MoE HDP handbook (2018)

During the class: presenting your Session plan

Letting your students know what they will be learning and doing in class will help keep them more engaged and on track. 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 the planned learning activities. You can share your lesson plan by writing a brief agenda on the whiteboard or telling students explicitly what they will be learning and doing in class.

After the class: reflecting on your session plan

Take a few minutes after each class to reflect on what worked well and why, and what you could have done differently. Identifying successful and less successful organization of class time and activities would make it easier to adjust to the contingencies of the classroom.

Activity 3:

- Why do you think evaluating the past lesson becomes important?

6.5.Types of Instructional Objectives

A. General Objectives: are used in preparing the course/unit plan. We use some of the following words to indicate the expected performance students will show after completing the course/unit.:

- To know, understand, comprehend, devote, grasp, enjoy, appreciate, have faith in, believe in, admire, develop, be familiar with, be aware of, acquire, etc.

Example: At the end of this unit, students will be able to understand instruction planning.

B. Specific Objectives: are used in preparing a plan for a single session. They clearly show what type of learning outcomes are expected from the learners. Action verbs will be used to indicate the expected learning outcome students should achieve.

 To compare, design, infer, identify, differentiate, construct, write, debate, define, solve, select, evaluate, draft, change, list, arrange, practice, locate, match, plan, separate, draw, measure, express, perform, calculate, explain, etc

Examples: At the end of this lesson, the students will be able to identify components of session plan.

At the end of this lesson, the students will be able to write SMART learning objectives.

Guidelines for Writing Instructional Objectives

 Objectives should be stated in terms of students' performance;

 Objectives should be written in terms of the learning outcome,

 Statements of objectives should be a combination of subject matter and desired behavior; Avoid the use of more than one action verbs in one statement.

6.6. Taxonomy of Educational Objectives

 A graduate of Higher Education Institutions has to be competent. What does this implies?

Based on the areas/domains they cover, Bloom and his associates (1956) classify educational objectives into three: cognitive, psychomotor and affective Domain.

I. Cognitive Domain: Cognitive behaviors include a range of intellectual activities such as memorizing, interpreting, applying, problem solving, reasoning, analyzing and thinking critically. Based on the levels of intellectual complexity, the cognitive domain is classified in to six hierarchical levels from the least complex *remembering* to the most complex *creating*:

a) ***Remembering:*** objectives at this level requires learners to recall or remember information such as facts, terminologies, problem solving strategies, rules, etc. Some of the action verbs that are used to describe learning outcomes at the knowledge level are *define, label, list, recall, identify, state, remember, tell* … etc. Remembering represents the lowest level of understanding in the cognitive domain.

- ***Example:*** By the end of this lesson, the student should be able to *list* the six levels of the cognitive domain according to their complexity.

b) ***Understanding:*** Objectives at this level require some degree of understanding and learners are expected to change the form of a communication, translate, and restate what has been read, see connections or relations between parts of a communication, or draw conclusion from the information or see the consequences of it. Some of the action verbs
that can be used to describe learning objectives at this level are *defend, summarize, explain, estimate, infer, predict, distinguish, paraphrase,* and the like.

- ***Example:*** By the end of this lesson, the student should be able to *summarize* roles of instructional objectives.

c) ***Applying:*** Objectives written at this level require learners to use previously acquired information in a setting other than the one in which it was learned. Application objectives differ from comprehension objectives in that application requires the presentation of a problem in different and often applied context. Some action verbs that are used to describe learning objectives are *change, prepare, apply, use, relate, demonstrate, modify, solve, organize,* etc.

- ***Example:*** By the end of this lesson, the student should be able to *solve* quadratic equations not covered in the class.

d) ***Analyzing:*** objectives written at this level require the learners to identify logical errors, for example, point out a contradiction or an erroneous inference or to differentiate between facts, opinions, assumptions, hypothesis and conclusions. At analysis level, students are expected to draw relationships between ideas and to compare and contrast. Some action verbs that are used to describe learning outcomes are *compare, describe, outline, illustrate, breakdown, infer, point to (out), subdivide* and the like. It also needs higher order thinking.

- ***Example:*** Given a presidential speech, the student should be able to *point to* the positions that attach an individual rather than individual's program.

e) ***Evaluating:*** objectives written at this level require the learners to form judgment and make decisions about the values, methods, ideas, people, or products that have specific purposes. Students are expected to state the bases for their judgments (for example, the criterion or principles they used to reach their conclusion). Some action verbs that describe learning objectives at this level are *appraise, support, defend, criticize, validate, judge, justify, contrast, argue*, etc.

f) ***Example:*** Given a previously unread short story, the student should be able to *criticize* the content and form of the story.

1. ***Creating:*** Objectives written at this level require the learners to produce something unique or original. At this level, students are expected to solve unfamiliar problems in a unique way or to combine parts to form a unique or novel solution. Some action verbs that are used to describe learning outcomes at this level are *compile, create, assemble, generate, devise, predict, produce, compose, design, formulate,* etc.
   - ***Example:*** By the end of this unit, the student should be able to *design* a research proposal

II. Affective Domain: Affective behaviors involve feelings, attitudes, interests, preferences, values, and emotions. Emotional stability, motivation, trustworthiness, self-control, and personality are all examples of affective characteristics. Although affective behaviors are rarely assessed formally in schools and classrooms, teachers assess them constantly in informal ways based on their informal observations and interactions with the students. Based on the level of value formation, the affective domain is classified into five hierarchical sub-divisions from the lowest *receiving* to the highest *characterization*.

a) ***Receiving/Attending:*** At this stage, the student is aware of or passively attending to certain phenomena and stimuli (e.g. listening, observing). Some action verbs that describe learning outcomes at receiving level are *listen, attend, share, notice to be aware, control, look, hear,* and the like.
   - ***Example:*** By the end of this lesson, the student should be able to *listen* public speeches.

b) ***Responding:*** at this stage the student complies with given expectations by attending or reacting to certain stimuli or phenomena (they may obey or participate as expected). Some action verbs that describe learning outcomes at responding level are *comply, follow, discuss, practice, play, applaud, participate, obey,* etc.
   - ***Example:*** By the end of this lesson, the students should be able to *follow* directions given in the book when asked to do so.

c) ***Valuing:*** here, the student displays a behavior consistent with a single belief or attitudes in situations where he/she is not forced to comply or obey (i.e. demonstrate a definite preference, displays a high degree of certainty and convictions). Some of the action verbs to be used here are *help, debate, argue, act, express, organize, prefer, convince, display* and the like.
   - ***Example:*** The student will express an opinion about unclear disarmament whenever national events raise the issue.

d) ***Organizing:*** At this level, students are committed to a set of values and communicate or display their beliefs or values (i.e. develop a rationale for a set of values, make judgments about sets of values). Some of the action verbs that describe learning outcomes at this level are *select, decide, balance, compare, define, formulate, systematize, abstract,* etc.
   - ***Example:*** The student will be able to *formulate the* reasons why he/she supports civil rights legislation that does not support his/her beliefs.

e) ***Characterization:*** Objectives at this level require that all the behaviors displayed by the student be consistent with his/her value. At this level students not only acquire the behaviors at all previous levels but also have integrated their values in to a system representing a complete and persuasive philosophy. Evaluation of this level of behavior involves the extent to which the student has developed a consistent philosophy of life (example, exhibits respect for the worth and dignity of human beings in any situation). Some action verbs that ascribe outcomes at this level are *display, avoid, require, revise, manage, resolve, resist, internalize, exhibit,*…etc.
   - ***Example:*** The student will *exhibit* a helping attitude toward handicapped students by assisting their mobility both in and outside the classroom.

III. Psychomotor Domain: This level deals with the skills of the students. This domain includes behaviors that rely heavily on muscular system-for example, running, jumping, speaking, typing and ridding bicycle, driving cars, etc. Based on the level of skill development it is classified in to five hierarchical sub-divisions from the least complex imitation to the most complex naturalization.

a) Imitation: objectives at this level requiring that students to be exposed to an observable action and then overtly imitate that action. At this level students are expected to observe and be able to repeat the action being visually demonstrated. Some action verbs that describe outcomes at this stage are *repeat, place, follow, hold, grasp, balance,* etc.

- ***Example:*** After being shown a free-hand drawing of a parallelogram, the student will be able to reproduce the drawing.

b) Manipulation: Objectives at this level require the student to perform or practice selected actions from written or verbal directions without the aid of visual model or direct observation. Action verbs are the same as that of the imitation level except that they are performed from spoken or written instructions.

- ***Example:*** Using instructions on handouts, the student will practice focusing the microscope until the outline of the specimen can be seen.

c) ***Precision:*** objectives at this level require students to perform an action independent of either a visual model or written set of directions. Students are expected to reproduce the action with control and to reduce errors to a minimum. Action verbs that describe learning outcomes at this level include performing the behavior: *accurately, independently, without error, with control, with balance*, etc.

- ***Example:*** The student will be able to *accurately* place the specimen on the microscope tray.

d) ***Articulation:*** objectives at this level require the student to display the coordination of a series of related acts by establishing the appropriate sequence and by performing the acts accurately with control as well as with speed and timing. Some of the action verbs that describe outcomes at this level include performing the behavior: *in harmony, coordination, integration, speed, timing, smooth mass, confidence, stability, proportion,* etc.

- ***Example:*** The student will be able to accurately complete 10 simple arithmetic problems on an electronic calculator *quickly and smoothly* within 90 seconds.

e) ***Naturalization:*** objectives at this level require a high level of proficiency in the skills or performances being taught. Here, behavior is performed with the least expenditure of energy and becomes routine, automatic and spontaneous. Students are expected to repeat the behavior naturally and effortlessly again and again. Some action verbs that describe outcomes at this level include performing the behavior; *naturally, with ease, routinely, effortlessly, automatically, spontaneously, professionally, with perfection*… etc.

- ***Example:*** By the end of this lesson, the student should be able to *automatically* draw correct isosceles, equilateral, and right triangles without the aid of a template.

The major implication of the domains for test construction is that tests should be written at the taxonomical level of the objectives covered by the instruction.

Practical Activity

By referring the curriculum of your department, take one course in your field of discipline.

I. Prepare a course plan/course outline.

II. Pick one topic from the course plan and prepare a session plan. (use the above format)

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Unit Seven: Technology Assisted Teaching and Learning in Higher Education Institutions

Unit description

Dear trainees, now you are going to see an important aspect in teaching and learning in Higher

Education Institutions. This part is designed to help you to get information about Technology Assisted teaching and learning in Higher Education Institutions that will help the teacher to make the teaching and learning process more technological twined, active and student-centered than the traditional approach. The unit will introduce you with the concept of Educational Technology and its importance. In addition to theoretical concepts mentioned, trainees will be exposed to practical engagements on how to search teaching materials and Scholarship opportunities.

Unit Objectives:

At the end of this unit, trainees will be able to:

- Define Educational Technology.
- Value the importance of technology assisted teaching and learning.
- List the different ICT tools to improve learning and teaching methods.
- List the advantages and disadvantages of PPT.
- Prepare a well-organized PowerPoint Presentation.
- Practice on searching teaching materials and books online.
- Get insight on how to search and win scholarship opportunities.
- Use different professional networks to their professional and personal development.

Activity 1:

4. What is Educational Technology for you?

7.1. Educational Technology

Educational technology is the effective use of technological tools in learning. Educational technology is defined by the Association for Educational Communications and Technology as "the study and ethical practice of facilitating learning and improving performance by creating, using, and managing appropriate technological processes and resources".

ICT is the buzzword today. The world has entered into an information and communication age. Whether it is a developed or developing country, north or south, east or west, ICT is omnipresent. It has helped in all walks of life in one-way or other. It is impossible to deny the importance of ICT in educational, cultural, agricultural, scientific and technical disciplines. Needs for information is increasing day by day and today every person is intending to be information oriented.

ICT stands for "Information and Communication Technology". ICT is an umbrella term that includes all technologies for the communication of information to its stakeholders. According to

Van Das (2002) it can be defined as, "combination of Computer, Video and Telecommunication Technologies, as observed in the use of Multimedia Computers and Networks and also services which are based on them." In general, we can describe ICT as an integration of computers, internet and audio-visual system which enable users to access, store and transmit information in a digital form. It is defined as the combination of informatics technology with other related technologies, specifically communication technology. ICT considers all the uses of latest digital technology that exists to help learners. It is a combination of a set of available software enabling teachers as well as students to accomplish their task in an effective manner.

ICT can provide access to information sources, enable communications, create interacting learning environment and promote change in methods of teaching. Therefore the ways of learning have been transformed by ICT and are no more restricted to medium of print, bibliographies, and abstracts. The sources of knowledge for students and teachers have also broken out of all geographical boundaries. As such it becomes very important that those associated with teaching learning process should not only be familiarized with this technology but also realize and put into action its useful aspects. In this context, the investigator has taken a small piece of research work to study the ICT status of teachers in terms of their knowledge about ICT, use of ICT and need of ICT. It is very difficult to move further without understanding the meaning of ICT.

ICT is a tool for communication and presentation which helps in bringing individuals together on a common platform for exchange of views, presentation of ideas (through, chatting or E-mail) and increases the interactivities between individuals and between individuals and technologies.

The explosion of digital technology has created a revolution in educational instructions. The flexibility, high speed and huge storage capacity of ICT is causing teachers to redefine and rethink the traditional process of teaching. The challenges facing teachers are to evaluate relevant applications of information and communication technologies in the teaching learning process. At the same time, instruction utilizing information and communication technologies must reflect what is known about effectiveness of student-centered teaching and learning process. Therefore teachers should aware about all new technology and knowledge explosion through ICT.

In this new technology era, the role of teachers has changed and continues to change from being an instructor to a constructor, facilitator, and coach to create learning situation and environment. ICT is very useful for teachers with this new role. Teachers can integrate ICT into teaching learning process effectively if he developed various skills and competences like, creativity, flexibility, logistic skills, skill for project work, administrative and organizational skills and collaborating learning skill. So teachers should use all these ICT resources to justify his new role as a facilitator, constructor and coach for his classroom teaching, professional development and personal development.

Table 1: Skills Needed in the Workplace of the Future

Digital Age Literacy	
Functional literacy	Ability to decipher meaning and express ideas in a range of media; this includes the use of images, graphics, video, charts and graphs or visual literacy
Scientific literacy	Understanding of both the theoretical and applied aspects of science and mathematics
Technological literacy	Competence in the use of information and communication technologies
Information literacy	Ability to find, evaluate and make appropriate use of information, including via the use of ICTs
Cultural literacy	Appreciation of the diversity of cultures
Global awareness	Understanding of how nations, corporations, and communities all over the world are interrelated
Inventive Thinking	
Adaptability	Ability to adapt and manage in a complex, interdependent world
Curiosity	Desire to know
Creativity	Ability to use imagination to create new things
Risk-taking	Ability to take risks
Higher-Order Thinking	Creative problem-solving and logical thinking that result in soundjudgments
Effective Communication	
Teaming	Ability to work in a team
Collaboration and interpersonal skills	Ability to interact smoothly and work effectively with others
Personal and social responsibility	Be accountable for the way they use ICTs and to learn to use ICTs for the public good
Interactive communication	Competence in conveying, transmitting, accessing and understanding information
High Productivity	Ability to prioritize, plan, and manage programs and projects to achieve the desired resultsAbility to apply what they learn in the classroom to real-life contexts to create relevant, high-quality products

Source: Adapted from EnGauge. North Central Regional Educational Laboratory.Available online at http://www.ncrel.org/engauge/skills/21skills.htm.Accessed 13February 2020.

Characteristics of ICT

Characteristics of ICT which makes it unique are as follows:

- Source of knowledge
- Medium to transmit knowledge
- Most interactive (facilitates communication)
- Customized
- Fewer errors (comparatively very low)
- Personalized
- Sharing digital resources
- The wide variety of services
- Flexibility in terms of its usage, needs and variety in learning
- ICT helps in the visualization and understanding of difficult concepts ICT promotes creativity among teachers as well as learners

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Activity 2:

1. List some reasons why your institution should implement technology.
2. What benefits do you think technology has for your classroom?
3. How can ICTs help transform the learning environment into one that is learner-centered?

7.2. Importance of educational technology in Higher Education Institutions

The pedagogical and socio-economic forces that have driven the higher learning institutions to adopt and incorporate ICTs in teaching and learning include:

- Greater information access;
- Greater communication via electronic facilities;
- Synchronous and asynchronous learning

- Increased cooperation and collaboration,
- Cost-effectiveness (e.g. by reaching different students and in greater numbers)
- Pedagogical improvement through simulations.

The reason for integrating ICT in education is to:

- Engage learners in meaningful, active and relevant learning.
- Give opportunities to learners to construct knowledge.
- Integrate technology into the curriculum and devise alternative ways of assessing learners' progress.
- Adopt the variety of learning styles to cater individual differences among learners in the classroom.
- Provide the opportunity to meet the individual learners' needs.
- Encourage divergent thinking among learners.
- Motivate new ideas, concepts by the learners as well as by teachers.
- Provide a stimulating environment to learners for effective learning.
- Develop the feelings among learners such as brotherhood, cooperation, sharing and collaborative learning.
- Expand the opportunities for lifelong learning for teachers as well as for learners.

 For Teachers:

- ✓ Aids in the teaching process
- ✓ Helps in Assessment and Evaluation
- ✓ Supports teaching
- ✓ Helps in Classroom Management
- ✓ Administrative help For Learners:
- ✓ To acquire information independently
- ✓ Communication and interaction among groups
- ✓ Self-directive learning
- ✓ Motivates students for learning

Activity 3:

1. What types of technologies improve learning?
2. Which technologies can we afford?
3. What sorts of skills are required to effectively and efficiently use those technologies?

N.B: You can refer to Appendix B attached at the end of this Manual.

7.3. PowerPoint preparation and Presentation

Activity 4:

1. What is PowerPoint?
2. Why do you use PowerPoint?
3. How do you use PowerPoint?
4. What do you think are the merits and demerits of in using PowerPoint Presentation?

PowerPoint is a computer program that allows you to create and show slides to support a presentation. You can combine text, graphics and multi-media content to create professional presentations. As a presentation tool, PowerPoint can be used to animate your slides to give them greater visual impact.

The primary advantage of using PowerPoint is that visual representations can help to reinforce the key points you are speaking about. Humans are visually orientated when learning new skills or ideas, so having a graphic representation of what you are speaking about make it easier to retain the information.
The primary disadvantage is that it takes time to learn how to use this software. For those unfamiliar with visual presentation software, the process can become difficult. It may even cause some to give up trying to learn it. Here are some of the other pros and cons of PowerPoint presentations that are worth thinking about as well.

Advantages:

- ✓ Can easily input images
- ✓ Templates are built in for different appearances
- ✓ Can add notes pages
- ✓ Can easily add media and recordings
- ✓ More exciting than a simple word document or hand written presentation
- ✓ Master slides make presentations consistent Etc.,

Disadvantages:

- ✓ Some features such as animations and backgrounds can distract the audience from the actual information in the presentation
- ✓ File size can become quite large on medium to large presentations
- ✓ Some of the features can be quite complicated to use and even the simple features require some getting used to
- ✓ When at work, you cannot rely on someone else's computer or laptop to run your presentation, there are too many software conflicts and disk space barriers.
- ✓ Takes quite a bit of time to create a complete presentation Etc.,

Some tips on preparing PPT

A PPT is designed to ENHANCE a presentation, not to BE the presentation. So, Prevent ***"Death by PowerPoint"***. Knowing how to use PowerPoint and work within it quickly is helpful. But more important is making a good presentation that hits all your goals and delivering it effectively. A great PowerPoint presentation is:

- **Prepared to Win**. Researched, planned, and prepared professionally, so you can deliver the right message to your target audience effectively.
- **Designed Correctly**. With points that are illustrated and visually stand out without overwhelming your audience or unnecessarily complicating your message.
- **Practiced to Perfection**. Rehearsed and timed so your points land as practiced with your live audience.
- **Delivered with Poise**. Presented with a relaxed inner-calm and confident outward projection, while communicating warmth, excitement, and energy.

- **Free from Mistakes**. Devoid of cheesy clipart, nonessential flashiness, miscues like reading directly from promoters, and other easy to avoid problems.
- Here are some tips on preparing PPT:

  - ✓ Highlight key points
  - ✓ Bullets should be short and to the point
  - ✓ Include only key words and phrases for visual reinforcement
  - ✓ Limit each slide to one idea
  - ✓ If you crowd too much text, the audience won't read it
  - ✓ Limit animation – too much animation can be distracting
  - ✓ Layout continuity/ uniformity from slide to slide
  - ✓ Font Style Should be Readable
  - ✓ Recommended fonts: Arial, Tahoma, Verdana
  - ✓ Don't Sacrifice Readability for Style
  - ✓ The focus should be on what you present, not the way you present
  - ✓ Use the same background on each slide
  - ✓ Use illustrations only when needed, otherwise they become distracters instead of communicators
  - ✓ Avoid the "All Word" slide
  - ✓ Etc.,

Activity 5:

- Prepare your own PowerPoint from the Course(s) that you are supposed to teach in the near future. Then, present it to colleagues and try to get feedback on it.

How to search software and teaching materials online?

- ➢ Looking at different Teaching Materials?

- ✓ *4shared*.com - free file sharing and storage

- ✓ *Gigablast* - An Alternative Open Source Search Engine *www.gigablast.com/*
- ✓ *Stack Overflow* is a question and answer site for professional and enthusiast programmers. *It's 100% free, no registration required.* **For downloading books**

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http://www.e-booksdirectory.com/
https://www.free-ebooks.net/
http://freecomputerbooks.com/
https://publications.europa.eu/de/web/general-publications/publications
http://bookboon.com/de
https://openlibrary.org/

- ➢ Looking for different Software?
  - **http://filehippo.com/** Looking to **download** safe **free** versions of the latest **software**
  - ✓ **http://www.filehorse.com/**Looking to **download** safe **free** versions of the latest **software**
  - ✓ http://www.fileeagle.com/ Looking to **download** safe **free** versions of the latest **software**
- ➢ Academic Conferences
  - ✓ https://www.academic-conferences.org

How to search Scholarship opportunities?

- ➢ Use Different Search Engines
- ➢ "CV format" … Most of the time European format is recommended
- ➢ Search based on different categories the likes of by field of study, by country, by status.
- ➢ e.g. *Scholarships-Links.com*
- ➢ scholarship-positions.com
- ➢ Other Job/Scholarship portals/search engines

http://scholarshipdb.net/ http://scholarship-positions.com/
http://www.scholarshipportal.com/ http://www.scholarshipstimes.com/
https://www.findaphd.com/ https://www.myscience.org/jobs
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http://freecomputerbooks

http://www.monster.de/

https://www.daad.de/de/
https://studyinsweden.se/scholarship/swedish-institute-study-scholarships/

- http://eacea.ec.europa.eu/erasmus_mundus/results_compendia/selected_projects_ action_1_master_courses_en.php

How to interact with professional persons digitally?

- Research gate
- Google Scholar
- Country Scimago Journal
- *LinkedIn*: World's Largest Professional Network: *www.linkedin.com/*

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Appendix A

Introducing the Institution

Unit description

The first challenge that faces a new employee who joins an organization is to adapt himself/herself with the working environment. To avoid such inconvenience, the employee should have an exposure on the major issues as first hand information

Unit Objectives

At the end of this unit, trainees will be able to:

- ✓ Adopt themselves to the Community in and out of the institution.
- ✓ Appreciate the history and culture of the community where the institution is located.
- ✓ Recognize the institution's success and growth.
- ✓ Appraise the educational programs of the institution.
- ✓ Get insight about the interplay between the institution and the community at large.
- ✓ Identify the organization structure of the institution.
- ✓ Value the institution's mission, vision and core values.
- ✓ Recognize the roles of different governing and advisory bodies of the institution.
- ✓ Identify their roles and responsibilities as instructor in the institution.
- ✓ Familiarize themselves with the different manuals developed by the institution.

The (ETA),established by proclamation number 1097/2018 in October 2018, is responsible to lead the development of science, higher education as well as the technical and vocational education and training (TVET) in Ethiopia.

Part I: Brief Introduction on the home town of the Institution

Information can be easily found from each town's administrative offices like Zone Woreda/District Culture and Tourism offices. The presentation might include the following important dimensions that can help the institution's new recruited instructors to adapt to the possible new environment and culture.

Location

- ✓ Area
- ✓ Elevation
- ✓ Region and Zone where the town is found
- ✓ Population
- ✓ Distance from the Capital – Addis Ababa

Unique history

- ✓ Year founded
- ✓ Brief historical events happened before

Local community

- ✓ Ethnic Composition
- ✓ Culture
- ✓ Religion
- ✓ Value
- ✓ Opportunities to work with

Areas to visit

- ✓ Point out possible areas to visit
- ✓ If possible, arrange visit program

 Coordinates

Part II: Brief Presentation on the Institution

Establishment

- ✓ Facts and Figures on the institution's establishment
- ✓ Past, Present, and Future
- ✓ Campuses (Number, location, and name)
- ✓ Infrastructure (Buildings, Residents, Hospital, etc)
- ✓ Staff and Student profile (Academic Staff with current status, Administration Staff, and Students with program-Undergraduate, Masters, PhD)

Colleges and Programs

- ✓ List of Colleges/Faculty/Institute/School
- ✓ Academic programs (Both Under and Post Graduate programs) in regular, extension, distance and summer
- ✓ Laboratories, Smart Classrooms and Workshops
- ✓ Staff Capacity building
  - ➢ Long - term (PhD, Masters, Sub-specialty)
  - ➢ Medium - term (HDP)
  - ➢ Short - term (Induction, Pedagogy, ELIP, etc.,)

Linkages

- ✓ National/Local
- ✓ International

Achievements

- ✓ Success on vision, mission, and values
- ✓ Conferences organized
- ✓ Acknowledgments from other bodies like ETA and HERQA
- ✓ Alumni success
- ✓ Grants won locally and internationally
- ✓ Scholarship

Interplay between the Institution and the community

- ✓ Services provided to the community (Health, Training, Support, Agriculture, etc)
  - Technology Transfer achievements

Part III: The senate Legislation of the University

Mission, Vision, and core values

- ✓ Mission of the institution
- ✓ Vision of the institution
- ✓ Values of the institution

Organizational Structures of the Institution

 The institution may have the following governing and advisory bodies (this may depend on the institution)

a. Board (Article 45)

- The board shall be accountable to the CEO of the college.
- The board is the supreme governing body of the institution.
- The board shall have the responsibilities to:
  - Supervise and ensure duties and responsibilities given to it by this Proclamation and other laws and that good governance prevails in the institution;
  - Examine, approve and follow up the implementation of proposals of institution's strategic and annual plans, budget institutional reorganization, organizational annual plans, policies, administration and academic programs, performance reports and financial statements and internal regulations of the institution;
  - Nominate the president on merits for appointment by the Ministry;
  - Nominate and appoint vice presidents on merits in consultation with the president;
  - Take any disciplinary action, including removal from office, against any vice president in the event of serious failure to discharge his responsibility; in the case of the president, consult with the Ministry for measures to be taken;
  - Approve promotions to the rank of professorship;
  - The term of tenure for board members shall be six years and may be renewed for additional one term.

b. President and Vice Presidents

- ➢ Offices Accountable to the President #

- Offices Accountable to the Vice President for Academics #?
- Offices Accountable to the Vice President for Research & Community Services #?
- Offices Accountable for the Vice President for Business and Development #?
- Offices Accountable for Vice President for Administration #?

c. Senate (Article 49)

 The senate, being the leading body of the institution for academic matters, shall have the responsibilities to:

  - ✓ Determine the academic calendar of the institution;
  - ✓ Accredit academic programs with the consensus of the board and the ministry; accredit curricula
  - ✓ Determine conditions on which degrees are awarded or revoked;
  - ✓ Examine and approve recommendations by the president in respect of opening, closure or merger of academic units;
  - ✓ Recommend to the board promotions of academic staff to the rank of professor;
  - ✓ Approve and promote academic staff to the rank of assistant and associate professor;
  - ✓ Award honorary degrees and other academic prizes

d. Managing Council

- The managing council shall **advise the president** on strategic issues and on other cases that the president believes require **collective examination**.
- The core members of the managing council are:
  - ✓ The President (Chair)
  - ✓ The Vice Presidents
  - ✓ The Head of the Office of Institutional Change
  - ✓ Students Affairs' Director

e. University Council

f. Academic Unit Council (AUC)

g. Academic Unit Managing Council

h. Department Council (DC)

I. Advisory or specialized committees or councils

Roles and responsibilities of Instructors

 Any institution may have the following academic staffs:

- Professors,
- Associate Professors,
- Assistant Professors,
- Lecturers,
- Assistant Lecturers and
- Graduate Assistants employed for teaching and or research;
- Other employees of the institution considered as work academic staff by decision of the senate following international good practice and the provisions of the institution's internal regulations.

➢ Quality of Teaching-Learning and Assessment of Students (Article 42)

✓ The Teaching &Learning process in any institution shall be interactively student centered that shall promote active learning.

✓ The teaching and learning conditions in any institution shall create in-class and on campus enabling environment and encouraging atmosphere for students to learn. The designing of courses and their delivery shall be such that the courses shall

- Add to the knowledge and skills students already have,
- Cultivate constructive professional values, and
- Bring about attitudinal changes and development in students at the end of the courses.

 Students shall be assessed properly and fairly on the basis of their learning experience;

 The marking system shall be reflective of the competences achieved by students.

✓ There shall be institutionally recognized and well defined student assessment and examination methods and systems at academic unit levels to which any academic staff shall adhere, and have been made known to students.

- ✓ During administration of examinations, correction of examinations and assignments, and in determining grades academic staff shall not discriminate;
- ✓ Rules and procedures governing teaching methods and assessment, grading and academic status of students shall be provided in the senate status of each institution and shall be further elaborated in guidelines issued by the appropriate academic units.
- ✓ Student complaints against assessment methods, examinations, grading systems or results thereof shall be handled, at institutional level, with due care and expeditiously.
- ✓ Academic staff shall receive on-job and tailor-made professional training on student assessment theories and skills; and mastery and successful application of assessment skills as well as teaching shall constitute critical prerequisites for continuity of employment and promotions. Academic Advising
- ✓ Establish a one to one contact between a member of the academic unit and a small group of students by assigning an academic advisor to each student;
- ✓ Help understand and recognize individual student's learning needs and goals;
- ✓ Promote and facilitate a learning process of a selected group of students;
- ✓ Provide an additional source of help, guidance and support in the academic pursuits of students requiring such support in addition to those provided by the normal channels.

➢ General Provisions on Examinations

- ✓ The number, type and schedule of exams or tests in a course are determined in the course syllabus to be made by the instructor of the course in consultation with the department.
- ✓ Copies of all exams, tests and quizzes, along with their answer keys shall be deposited with the department immediately following the administration of the exams, tests or quizzes;
- ✓ In those cases where a course is taught by the same instructor to more than one section of students in the same program, the summative examinations shall be of the same form and content.
  - The same scheme of grading shall also be employed;

A common examination paper shall be prepared in cases where more than one instructor teaches a course with the same title and credit hours to one or more sections.

- Ranks and Promotions for Academic Staff

  - The University shall use the following hierarchy of teaching staff in the ascending order:
    - Graduate Assistant I
    - Graduate Assistant II
    - Assistant Lecturer
    - Lecturer
    - Assistant Professor
    - Associate Professor
    - Professor
  - A case of promotion shall be said to have reached a final stage if the following conditions are satisfied:
    - Promotion to the rank of Professor when approved by the Board;
    - Promotions to the ranks of Assistant Professor and Associate Professor when approved by the Senate;
    - Promotions up to the rank of Lecturer when approved by the respective Academic Council/College Academic Council; Criteria for Promotions of Academic Staff
    - The length of service with a given rank,
    - Effectiveness in teaching
    - Effectiveness or quality of research, publications,
    - Participation in the affairs of the University, and
    - Public and professional service rendered to the public in various capacities
  - For an academic staff member who has served in other accredited institutions of higher learning before being employed by the University in a given department,
    - the years of service outside shall be considered for the fulfillment of this criterion.

    However, such a member must serve for at least one year at the University before submitting application for promotion.

- ✓ Promotion request of a staff member on any kind of leave shall not be entertained.
- ✓ However, the promotion request of a staff member who fulfills all the requirements for promotion and submitted the application before taking the leave shall be entertained.
- ✓ Additionally, an academic staff member on a study leave and who contribute greater than or equal to 50% of workload, which is expected from full time staff, are eligible to apply for promotion.

Working manuals (If any)

- ✓ Code of conduct
- ✓ Assessment policy
- ✓ Quality Assurance guide
- ✓ Teaching Material Development Guide
- ✓ Performance Evaluation guide
- ✓ Dressing code
- ✓ Research guide
- ✓ Community service guide
- ✓ Etc

Part IV: Presentations from different offices of the University

A. Research, Community Service and Technology Transfer Vice President

 History and Tradition Team – based?

 List them so that instructors will identify them.

- ✓ Relevant for solving problems?
- ✓ Research Centers?
- ✓ Scientific Journals?
- ✓ Research Budget trend in Birr?
- ✓ Trends of research projects
- ✓ Research Capacity Building Trainings?
- ✓ Research, CS, & TT Policy's and Guidelines
- ✓ Research, CS, & TT Conferences and Workshops

B. ICT Directorate

 Network infrastructure and services

- Unified Communication system
- IP telephony Functionality
- Wireless Network Services
- Data center
- Email and Active Directory Services

✓ Enterprise Application Development

✓ Software Application Services

- SIS(Student information System)
- Digital Library System
- Digital Repository (for Thesis, Projects, ..etc.)
- E-Journals

 ICT Training and Consultancy

- Basic Computer Skills
- Smart Board Training
- Student Information System training
- Intuitional Mail services training
- Unified communication system(IP telephone) training
- International Academy (Oracle, Microsoft, cisco, Huawei, etc.,) Teaching and Learning Technology
- eLearning services
- Smart class
- Digital signage
- Smart interactive whiteboard system
- Video conference

✓ ICT maintenance and support

- ICT Services support
- Staff PC maintenance and support
- Office equipment maintenance and support

✓ Camera surveillance system

C. Gender and HIV/AIDS Directorate

- ✓ Definition of the basic words
- ✓ Briefing Institution's policy on it
- ✓ Gender work place
- ✓ Anti-sexual harassment and misconduct policy
- ✓ HIV/AIDS policy and strategy

D. Registrar and Alumni Directorate

- ✓ Students Information System
  - Registration
  - Dormitory assignment
  - Cafeteria Services
  - Security checkpoints
- ✓ Graduation & Alumni Reunion

E. Library and Documentation Directorate

- ✓ Number of Libraries across Campuses, Colleges, and Programs Digitalization?
- ✓ Technological equipped.
- ✓ Number of Books

Appendix B

Top 10 ICT Tools to Improve Learning & Teaching Methods

Exposure towards the ICT-based curriculum makes a significant and positive impact on student achievement. It helps them improve their knowledge, comprehension ability, practical and presentation skills with respect to different academic areas like mathematics, science, and social study, believes the National Institute of Multimedia Education in Japan. Being an owner of an educational institute, if you are looking for reliable ICT tools that can help you provide excellent education to students and stay at par with the global standards, you are on the right place. Here, we will discuss top 10 ICT tools to improve learning & teaching methods.

1. Grammar Gold: Now-a-days, no matter in which part of the globe you are living or which country your represent, it is imperative to have full knowledge about English. You must be excellent in reading, writing, listening and understanding English. Through Grammar Gold, an unprecedented teaching and learning session is provided for different

niche. So, this websites caters to a small kid from Kinder Garden to a fully grown adult pursuing his/ her masters. Available in a comprehensively engaged user interface customization, with the help of Grammar Gold, learning English would be a real-time fun for folks of any genre. This website provides English teaching revolving around grammar correction, comprehension and coherence. You can avail beginner, intermediate and advanced level of English tutorials by using this tool.

2. **Curation Soft**: If one has to ask what drives learning and knowledge, well, in that case, it will be understood that if it is done in the friendliest way possible. Curation Soft, an unprecedented and pioneering e-learning tool brings into your platter information that you will like to devour at one go. This website has fully an integrated and user-friendly e-learning tool that streamlines education in the way that look interactive, connected and completely an explorative sojourn. So, no matter on which topic you are researching and what is the niche that you want to cater, once you are overenthusiastically using Curation Soft website, it is a bet that you will have the best learning experience that you can ever dream of. This website provides explanation in the way that resonates best with your understanding and abilities.

3. **Collaborize Classroom:** Imagine a world where teaching stretches across the realm of friendliness and comfort. Grammar Gold is helping to let these imaginations come alive with their endeavors and tech savvy initiatives. This tool provides the leverage to converse, discuss, solve and implement different methodologies that paves the way for quick learning with stupendous classroom results. The mundane teaching session will be done away with once you switch to Collaborize classroom. You get everything under one umbrella, so from launching project learning experience to student driven support and learning sessions, with the help of Collaborize classroom you are never stuck in the darkness of ignorance.

4. **Hippo Campus:** How would you feel if the lengthy projects, boring phrases and mundane thesis come out in a flashing kaleidoscopic version? Well, certainly you would feel awestricken. So, to ensure that all of the above things that are said in the first place get materialized, Hippo Campus, an academic tool that deals with classroom style learning is helping professors, students, faculty across the globe to get integrated. For any general subject, if you want to get access to information in the form of videos and pictures then Hippo Campus can cut the maximum ice in this pursuit. You can get relevant and deeply researched pieces on different subject from Hippo Campus. So, even though you are sitting in London and you want someone based in Strafford to adhere to your queries, it is very much doable once you switch to Hippo Campus. So, no matter

whether you want help from faculties representing Princeton or Yale, you can just use the Hippo Campus ICT tool and get your queries answered in the best way possible.

5. E-books: Not merely thinking and speaking about the planet would do, rather taking initiatives will ensure that we have access to this beautiful surroundings leaden with nature forever. E-book tools are striving to help this dream materialize in real time. These books can be accessed from anywhere in the world and it caters to a broad array of subjective and objective knowledge that one seeks for enlightenment, so no cutting trees and processing paper out of it for knowledge, let technology take an initiative. E-book is helping a lot on storytelling.

6. Online Behavior System: So, what if a day the teacher is sick and could not make it to school, with the help of technology classes would go as usual. Now, you may wonder how? Well, with Online Behavior System, the clout of ICT is being experienced now-a-days. So, even though the teacher is not coming to school still with Online behavior system a tab can be kept on students perseverance, dedication, learning experience, assessment, presentations, discipline and cooperation. This tool has enabled the creation of virtual classroom and this has been helping folks enjoy learning in the best way possible.

7. Author Stream Power Point Convertor: Images play a pivotal role for learning and grasping things. Through author stream power point converter, a wholly functional power point presentation can be provided encapsulating different subjects, thesis and other information that one needs at their fingertip. The tool is highly interactive and you just need to upload the information that you want to feed on the net. It breaks down the learning is simple gateways and makes reader understand the crux of the information in the best way.

8. I-civics: Often people find civics to be challenging and monotonous. Memorizing different articles, schedules and amendments can give hard time to anyone under the sun. So, to pave the way where learning turns out to be fun is the best way to make the subject interesting. If one has to speak about US, the country is using I-civics to provide the broad information about the ethos of democracy and its working. I-civics, an ICT tool ensures that learning of the constitution can be facilitated in interactive work, thereby rendering it attractive and a fun experience altogether. The vision of this ICT learning tool is to drive away the mundane feeling that one experiences while going through civics. This tool caters to individuals, small groups and educational institutions in teaching the various facets of civics in an engaging manner.

9. Edmodo: Edmodo has taken the world of online learning by storm. Recently, this ICT tool has added 40 million consumers in its realm. It has provided leverage to teachers for providing ICT based education across the globe. This tool charges nothing for providing vocational education, new trends prevailing in the education system and at the same time it monitors student progress in all dimensions—bonus!

10. Dropbox: You stepped out of the house in haste and finally when you were on your way to the examination hall, you finally realized that you have left the textbooks at home. Don't look baffled, it is an era of technology and you have Dropbox to rescue you from this mess. This tool follows a cloud storage system, so even though you forgot your test books you have that thesis fed in the system. So, do not worry, just synchronize the device with Dropbox and access your valuable document that can help you get the last important glance for memorizing vital information the very last time. This tool is highly customizable and easy to use.

Appendix C

Time table

Proposed time table for induction training		
Contents	**Time to be spent on training**	
	Hours	**Days**
Introducing the institution	**8**	**1**
Unit One: Professionalism, Professional Ethics	**16**	**Days**
1.1. Professionalism		**2**
1.2. Professional Ethics		
1.3. Diversity Management		
1.4. Teachers' Role in Peace Building		
Unit Two: Teaching and Learning in Higher Education	**16**	**Days**
2.1 Concept of Teaching		**2**
2.2. Teaching Principles		
2.2 Effective Teaching		
2.3 Concept of Learning		
2.3. Conceptual model for teaching and learning in higher education		
2.4 Features of Learning		
2.5 Characteristics of effective Learning		
2.6. Factors Affecting Learning		
2.8. Approaches to Learning		
2.9 learning theories and their implications		
Unit Three: Active learning methods	**32**	**Days**
3.1. Why active learning?		**4**

3.2. Definition of Active Learning		
3.3. Benefits of using active learning in education		
3.4. Different Active Learning Techniques		
Unit Four: Classroom Management	**16**	**Days**
4.1. Definition of Classroom Management		**2**
4.2. Features of effective classroom management		
4.3. Purposes of Classroom Management		
4.4. Major Causes for Classroom management problems		
4.5. Approaches in managing student behavior		
4.6. Techniques of managing Classroom Misbehavior		
4.7. Aspects of Good Classroom Management		
4.8. Seating Arrangement as me management of classroom		
Unit Five: Educational Assessment and Evaluation	**32**	**Days**
5.1. Educational Measurement, Evaluation Assessment		**4**
5.2. Purposes of Assessment		
5.3. Levels of Classroom Assessment		
5.4. Characteristics of Continuous Assessment		
5.5. Planning Tests		
5.6. Principles in Test Construction		
5.7. Grading System		
Unit Six: Instructional Planning	**24**	**Days**

6.1. Conceptualizing Instructional Planning		**3**
6.2. Rationale for instructional planning		
6.3. Preconditions for instructional planning		
6.4. Levels of Instructional planning in		
6.6. Taxonomy of Educational Objectives		
Unit Seven: Technology Assisted Teaching and Learning in Higher Education Institutions	**16**	**Days**
7.1. Educational Technology		**2**
Total	**160 hours**	**20 days**