Training of Trainers and Novice Teachers in Higher, Adult and Vocational Education

Overview

This resource material on "Training of Trainers and Novice Teachers in Higher, Adult and Vocational Education" is designed by experts to help new trainers and teachers in acquiring planning, designing, facilitating, assessment, evaluation and professional development skills necessary for effective transformation of the workplace in the 21st century.

College of Social Work was founded in 1955 by a band of valiant women known as Daughters of the Heart of Mary, whose mission was to readily respond to the needs of Indian society according to the signs of the time. During the 66 years of existence, the College of Social Work has initiated several projects of national and international repute. Appreciating the efforts, the college was awarded A grade thrice by the National Accreditation and Assessment Cell (NAAC) and on 12th Feb 2019, the University Grants Commission conferred Autonomous Status to the College of Social Work. The College offers a range of courses relevant to the field of social work practice such as BSW, MSW, PhD and a host of PG Diploma, Diploma, Certificate, and professional development courses and workshops in Applied Social Science field.

Several expert committees, reports and policies have highlighted the training gap in Higher Education. Mudaliar Commission (1952) stated that training is required for the professional development of the teachers. National Education Commission (1964-66) recommended professional preparation of teachers of higher education. National Policy on Education in its Programme of Action (1986) proposed a specially designed orientation programme for all new entrants and organise refresher courses for all the teachers at least once in five years. Ramamurti Committee (1990) recommended that there should be one year training after the recruitment of teachers for their professional development. The New Education Policy 2020 also recommends teacher training to address the key challenges of education in India. The Academic Staff Colleges/ Human Resource Development Centres established in 66 Universities in India has taken the responsibility in training the novice and experienced teachers in Higher Education through offering orientation and refresher courses ranging 1 month and 2 weeks respectively.

Similarly in the HRD sector, to meet the long felt need for a basic qualification in Training & Development , a Diploma in Training & Development was introduced in April, 1979 by Indian Society of Training and Development which has trained over 24,000 persons working in industries, business, banks, government departments, administration, defence forces, public utilities, power plants, agricultural development programmes, health education and other social services.

Inspite of these initiatives by ASC/HRDC and ISTD, there is huge demand for training need in the higher education and HRD sectors. To address this demand several E-learning and EduTech players have pitched in short term training for trainers courses. The College of Social Work has a history of training professionals in both the higher education and HRD sectors. The College established an Extension Centre at its Goregaon campus in 1992, and since then has trained thousands of adult learners every year. Based on the experience of the resourceful educators in the Extension Centre this resource material is developed. It is available online for free consumption of audiences in India across the globe.

Learning Outcomes

At the end of the course, learners will be able to:

1. Recognise the emerging educational concepts and principles of adult learning

2. Conduct need analysis, design learning experiences and facilitate sessions

3. Perform assessment and evaluation tasks

4. Reflect on the importance of documentation in professional development

Schedule

Day (Theme)	10.00 am – 11.30 am	11.45 am – 1.15 pm	2.00 pm – 3.30 pm	3.45 pm –5.15 pm
1 *Foundations of Adult Learning)*	Introduction to Adult Learning Concepts	Context of Learner Centred Approaches	Principles of Outcome Based Training	Training/ Learning Need Assessment
2 *(Design and Facilitation of Learning Experiences)*	Designing Learning Experiences	Group Work-I	Blending Teaching and Facilitation Skills	Group Work-II
3 *(Assessment and Evaluation)*	Assessment	Group Work-III	Evaluation	Professional Development

Session Overview

1. Introduction to Adult Learning Concepts

How did teachers teach you? We asked some of the program participants to share. These were the responses:

Participant 1:

"Our teacher/ trainer dictated notes and we were supposed to write. If the teacher/ trainer notices that we are distracted or not writing what he says, he would yell at us"

Participant 2:

"My teacher/ trainer was so good at content. She would teach everything. We could memorise all that she taught and pass in the exam"

Note: Facilitator shall ask participants to share their experiences

The Banking Model of Education:

Paulo Freire is very critical of teachers/ trainers who see themselves as the sole possessors of knowledge while they see their students as empty vessels into which teachers/trainers must deposit their knowledge. He calls this pedagogical approach the "banking method" of education. In his book titled, 'Pedagogy of the Oppressed', Freire (1970: 59) explains that banking education is generally characterized by the following oppressive attitudes and practices:

- the teacher/ trainer teaches and the students are taught;

- the teacher/ trainer knows everything and the students know nothing;

- the teacher/ trainer thinks and the students are thought about;

- the teacher/ trainer talks and the students listen-meekly;

- the teacher/ trainer chooses and enforces his choice, and the students comply;

- the teacher/ trainer chooses the program content, and the students (who are not consulted) adapt to it;

- the teacher/ trainer is the Subject of the learning process, while the students are mere objects.

How do adults learn actually?

According to constructivism, learning is not a thing that can be simply given by the teacher to students. Rather, knowledge is constructed by learners through an active, mental process of development. Therefore, learners are the builders and creators of meaning and knowledge. Twomey Fosnot (1989) defines constructivism in education by reference to four principles:

   (a) learning depends on what we already know;

   (b) new ideas occur as we adapt and change our old ideas;

   (c) learning involves inventing ideas rather than mechanically accumulating facts;

   (d) meaningful learning occurs through rethinking old ideas and coming to new conclusions about new ideas which conflict with our old ideas.

Piaget (1977) asserts that learning occurs by an active construction of meaning, rather than by passive recipients. He explains that when we, as learners, encounter an experience or a situation that conflicts with our current way of thinking, a state of disequilibrium or imbalance is created. We must then alter our thinking to restore equilibrium or balance.To do this, we make sense of the new information by associating it with what we already know, that is, by attempting to assimilate it into our existing knowledge. When we are unable to do this, we accommodate the new information to our old way of thinking by restructuring our present knowledge to a higher level of thinking.

Kelly (1991) proposes that we look at the world through mental constructs or patterns which we create. We develop ways of construing or understanding the world based on our experiences. When we encounter a new experience, we attempt to fit these patterns over the new experience. Similarly, Miller and Dollard proposed a theory of social learning. In 1963, Bandura and Walters broadened the frontiers of this theory with the now familiar principles of observational learning and vicarious reinforcement. In 1977 and 1986, Bandura added the key concepts of self-belief and human functioning that accords a central role to cognitive, vicarious, self-regulatory, and self-reflective processes in human adaptation and change. According to this perspective, learners are viewed as self-organizing, proactive, self-reflecting organisms shaped by environmental forces or inner impulses. From this theoretical perspective, human functioning is viewed as the product of a dynamic interplay of personal, behavioural, and environmental influences. Using social cognitive theory as a framework, teachers can work to improve their students' emotional states and to correct their faulty self-beliefs and habits of thinking (personal factors), improve their academic skills and self-regulatory practices (behaviour), and alter the classroom and supervisory structures that may work to undermine student success (environmental factors).

Assumptions and Principles of Adult Learning:

According to Knowles (1975, 1980), adult learners are different from children in many ways. Adult learners have

- an idea of why they should learn something.
- internal motivation.
- knowledge of how learning will help them specifically.
- prior knowledge and experience that form a foundation for their learning.
- desire for self-directed learning as they want to take charge of their learning journey.
- aspiration for task-oriented learning relevant as that aligns with their own realities.

Based on his work with learners across different sectors, Knowles (1984) further suggested four principles that are applied to adult learning:

- Adults need to be involved in the planning and evaluation of their instruction.
- Experience (including mistakes) provides the basis for the learning activities.
- Adults are most interested in learning subjects that have immediate relevance and impact to their livelihood or personal life.
- Adult learning is problem/learner-centered rather than content-oriented.

Exercise:

Participants will work in small groups to prepare a charter on "fundamentals of adult learning". They shall use the information shared by the facilitator to prepare the charter. Creative methods of representation can be tried

---

2. Learner Centred and Outcome Based Approaches

Learner-centred approach views learners as active participants in the learning process. A learner centred educator/ trainer believes that students bring their own knowledge, past experiences, education, and ideas. Learner-centred approach differs significantly from a traditional instructor-centred approach. Traditional learning approaches were informed by behavioural theories, which sees learners as 'blank slates and instructors as experts who must impart all the relevant information. This approach sees learners as respondents to external stimuli. In the traditional approach to college teaching, most class time is spent with the professor lecturing and the students watching and listening. The students work individually on assignments, and cooperation is discouraged. Learner-centered teaching methods shift the focus of activity from the teacher to the learners.

These learner centred methods focus on :

- Active learning, in which students solve problems, answer questions, formulate questions of their own, discuss, explain, debate, or brainstorm during class
- Cooperative learning, in which students work in teams on problems and projects under conditions that assure both positive interdependence and individual accountability
- Inductive teaching and learning, in which students are first presented with challenges. Students rely on inquiry-based learning, case-based instruction, and project-based assignments to learn the subject matter.

Let's see two scenarios and then discuss a little bit more on the topic.

Scenario 1: When Mrs.Banerjee takes a class of 40 students. She is teaching leaf anatomy. She explains all concepts well but seldom asks questions. She gets distracted if students ask questions. She is focused on finishing the course in time. Therefore, she finds very little time to take care of the needs and interests of the students. This is a typical teacher-centred classroom situation.

Now, let's discuss some pros and cons:

Pros	Cons
- When education is teacher-centered, the classroom remains orderly. Students are quiet, and you retain full control of the classroom and its activities. - Because students learn on their own, they learn independence and make their own decisions. - Because you direct all classroom activities, you don't have to worry that students will miss an important topic.	- When students work alone, they don't learn to collaborate with other students, and their communication skills may suffer. - Teacher-centered instruction can be boring for students. Their minds may wander, and they may miss important facts. - Teacher-centered instruction doesn't allow students to express themselves, ask questions, and direct their own learning.

Source: https://resilienteducator.com/classroom-resources/which-is-best-teacher-centered-or-student-centered-education/

Scenario 2: Mr.Rajan is given a class of 40 students. He also teaches leaf anatomy- to another division. Before the scheduled session, Rajan divides the whole class into 5-6 groups, asking each student to bring a different plant. He also shared a 5 minutes video presentation about the concepts which the students should know before coming to the session. On the day of the session, students are asked to observe the leaf brought by self and other peers and are encouraged to discuss the structure of the leaf in detail in their group. The teacher facilitates group discussion and ensures participation of each student by giving opportunity to each student to explore and utilize his/her rich experience. Then at the end, each student is asked to share their learning among the students.

Exercise:

List any characteristics of a learner-centered classroom (facilitator to note all points on the whiteboard. Now help the participants compare and contrast both the approaches in their own way by using the bullet points noted by the facilitator)

Let's do a True or False exercise?

a. Learner is at the centre of all activities in a learner- centred approach
b. The teacher/ trainer plays the role of a facilitator
c. Learner centred approach does not stimulate curiosity and independent thinking

Now, let's focus on outcome based education/ training.

Outcome Based Education:

- Outcome-Based Education (OBE) is a student-centric teaching-learning methodology in which the course delivery, and assessment are planned to achieve stated learning outcomes.
- Outcomes are what students will be able to do after they successfully complete the learning experience, not what they will do during the learning experience.

"While the traditional education system focuses on what is taught, OBE places emphasis on what is learned, and this distinction is very important. The latter is a student-centric model that incorporates real-world scenarios. The knowledge, skills and attributes that students take away at the end of a program or course are more valuable than what, or how, something is taught. OBE focuses on the skill sets students to acquire following the completion of their studies. Activities in or outside the classroom are designed in a manner so as to help students achieve these outcomes."

(Source: https://camudigitalcampus.com)

From this quotation above it's clear that the outcome based approach is a shift of teaching learning paradigm from teacher centred to student centric. In India adoption of OBE was a result of signing the Washington Accord. The National Board of Accreditation (NBA), apex body for monitoring quality of engineering education in India, has made it mandatory as a part of accreditation in 2014. The positive results of implementing OBE in engineering education led to the promotion of the approach by UGC in 2019.

Some of the concepts related to OBE are Session Learning Outcomes (SLO), Course Learning Outcome (CLO), and Program Learning Outcome (PLO) which determine exactly what students are expected to accomplish in the session, post their course, or after the program respectively. In order to go further let's find out the difference between Program, Course and Session. Courses are the subjects/ capsules you study as part of your program. Within each course there will be sessions.

For example if you consider Training for Entrepreneurship as a Program, then Entrepreneurship Development and Training are the two courses. Within each course, there are ten sessions.

- Session plans provide trainers/ teachers with a clear focus for the learning activities and materials they select for each session or module they teach. Similarly, session learning outcomes (SLO) assist students to engage in intentional learning, which is likely to lead to higher levels of achievement
- Course/Activity Learning Outcomes (CLOs) are specific take-aways from a course or activity that students are meant to apply in future settings.
- Program Learning Outcomes (PLOs) are the knowledge, skills, and dispositions that are specific to a particular program/department. PLOs represent the big picture of a program by depicting broad aspects of desired student capabilities and reflecting the key distinguishing characteristics of the transition from student to professional/practitioner

Writing Learning Outcomes

Learning outcomes are statements that describe the knowledge or skills students should acquire by the end of a particular session, course, or program, and help students understand why that knowledge and those skills will be useful to them. They focus on the context and potential applications of knowledge and skills, help students connect learning in various contexts, and help guide assessment and evaluation. Good learning outcomes emphasize the application and integration of knowledge. Instead of focusing on coverage of material, learning outcomes articulate how students will be able to employ the material, both in the context of the class and more broadly. Inorder to start writing learning outcomes, it is important to understand Blooms Taxonomy. In 1956, a group of educators, led by Benjamin Bloom, identified a hierarchy of six categories of cognitive skills: knowledge, comprehension, application, analysis, synthesis and evaluation. As students learn, they start with the knowledge level and progress through the hierarchy. Thus, advanced courses should include skills at a higher level than introductory or basic skills courses. The action verbs written within brackets are examples of verbs used in preparing learning outcomes

- Knowledge Level: recognize or recall learned information (list, underline, recall)
- Comprehension Level: restate or interpret information in their own words (explain, describe, summarise)

- Application Level: apply the learned information (demonstrate, conduct, apply).
- Analysis Level: examine the learned information critically (analyse, critique, test)
- Synthesis Level: create new models using the learned information (develop, create, design)
- Evaluation Level: assess or judge the value of information (review, investigate)

Exercise:

Construct 2 learning outcomes for this current session in small groups (facilitator to check whether right action verbs and student facing outcomes are constructed)

---

3. Principles of Universal Design for Learning

Universal Design for Learning (UDL) traces its origin to the Universal Design (UD) movement of the 1990's. The term *universal design* was coined by architect and designer Ron Mace at North Carolina State University (Burgstahler, 2008; Center for Applied Special Technology, 2011b).Universal Design principles have inspired the Universal Design for Learning (UDL) framework, which combines the principles of Universal Design with theories of learning from cognitive neuroscience [CAST, 2015]. Universal design is closely aligned with the concepts of equity, diversity, accessibility and inclusivity. The goal of UDL is to use a variety of teaching methods to remove any barriers to learning and give all students equal opportunities to succeed. It's about building in flexibility that can be adjusted for every student's strengths and needs. UDL emphasis on flexible curriculum, and variety of instructional practices, materials, and learning activities.

Watch the video below:

https://teaching.unsw.edu.au/universal-design-learning-udl

Belief about Students:

a) *Students have varied learning preferences:* Yes, while some enjoy reading, some look for visuals, others are motivated by listening to a lecture

b) *Students use varied devices:* While some prefer to complete tasks manually with pen and paper, others use laptop or smartphone. Their needs vary depending on access and capability.

c) *Students have varied personal circumstances:* While some students live at home and receive family support, others live on campus, or flatmates.

The UDL framework centres around the following three educational design principles (National Center on Universal Design for Learning, 2014):

a) Provide multiple means of representation

This principle is based on the idea that learners will perceive and process information in different ways. Provide information in multiple modes (e.g. Videos, audio, text) to enable access for learners with certain disabilities.

b) Provide multiple means of action and expression

Learners approach learning differently and will act and express their ideas in different ways and means (e.g. through physical action, text responses, creative media)

c) Multiple means of engagement

This principle is based on the idea that learners will be engaged or motivated by different things. Provide options for personalising activities and assignments.

Some of the classroom engagement processes include:

- Cooperative learning: is the process of breaking a classroom of students into small groups so they can discover a new concept together and help each other learn. It also refers to a structured method of combining classroom-based education with practical work experience.

- Differentiated instruction: is tailoring instruction to meet individual needs. Whether teachers differentiate content, process, products, or the learning environment, the use of ongoing assessment and flexible grouping makes this a successful approach to instruction
- Project-based learning: is a teaching method in which students gain knowledge and skills by working for an extended period of time to investigate and respond to an authentic, engaging, and complex question, problem, or challenge
- Use of case studies, quiz, debates, role play, hands-on activities, field trips, guest speakers, etc

Addressing multiple intelligences:

Howard Gardner's theory of multiple intelligences proposes that people are not born with all of the intelligence they will ever have. This theory challenged the traditional notion that there is one single type of intelligence, sometimes known as "g" for general intelligence, that only focuses on cognitive abilities.

This simple grid diagram illustrates Howard Gardner's model of the seven Multiple Intelligences at a glance.

- Linguistic   :words and language
- Logical-Mathematical   :logic and numbers
- Musical   :music, sound, rhythm
- Bodily-Kinesthetic   :body movement control
- Spatial-Visual   :images and space
- Interpersonal   :other people's feelings
- Intrapersonal   :self-awareness

We will use the concept of multiple intelligences in designing and facilitation sessions

Take home Tasks: Please read both the documents at home. We will discuss these during next day sessions

a. UDL in UNSW Sydney:

https://teaching.unsw.edu.au/sites/default/files/u378/UNSW%20Sydney%20UDL%20Framework_final.pdf

b. Multiple Intelligences:

https://files.eric.ed.gov/fulltext/EJ891071.pdf

4. Training/ Learning Need Assessment

Training Need Assessment (TNA) is the method of determining if a need exists and, if it does, to what extent. Training may be needed when there is a gap between the desired performance, and the current performance, and the reason for that gap is lack of skill or knowledge. So the first step would be to analyze the problem which exists and find out whether training will be able to resolve it. If training is necessary, we also need to define the learning outcomes of the training.

According to SHRM:

"...training needs assessment identifies individuals' current level of competency, skill or knowledge in one or more areas and compares that competency level to the required competency standard established for their positions or other positions within the organization. The difference between the current and required competencies can help determine training needs."

Source:
https://www.shrm.org/resourcesandtools/tools-and-samples/how-to-guides/pages/conduct-training-needs-assessment.aspx#:~:text=
A%20training%20needs%20assessment%20identifies,other%20positions%20within%20the%20organization.

Learning needs assessment is a crucial process in educational institutions too, but perhaps not many institutions encourage it due to want of time. It is a well known fact now that most of our students fail in real life (profession) because they do not have the skills. A deeper analysis will reveal that institutions which did not engage in learning needs assessment did a disservice and so led to ad hoc education

The processes of Training Needs Assessment can be divided into five stages, namely identify problem/ needs; determine design of needs assessment study; collect data; analyze data; and develop a need assessment report.

   a) Stage 1: Identification of Problem/ Needs: To identify problems, the first thing to do is obtaining feedback from experts and key stakeholders (current learners, parents, etc) about the existing program. Second step is to do an external/ market scan inorder to find the recent trends and then identify the "critical gaps' ' in the program.
   b) Determining the design: Need assessment can be done by a census method in which all current program participants are involved. Another way to do so is to select a sample of current and future learners in the process. Qualitative, participatory or quantitative methods can be used as design.
   c) Collecting data: This step involves administering the questionnaire or interview schedule with the sample respondents. Google forms, jot forms or any other online data collection platforms can be used to speeden the process
   d) Analysing data: If data collection is done using google forms or jot forms, data will be automatically analysed. If data is collected in hardcopy format, data entry needs to be done before using excel or SPSS for analysis
   e) Developing a report: in this stage, a proper report on the training needs is developed by the organisation which forms the basis for new program design

Facilitator Note:

It is important that the facilitator asks the reason why participants chose a particular response. Use annexure-1 to help them in understanding the basic template for TNA

Performing a training needs assessment (TNA) should be considered as an essential step in the planning process, as it can help ascertain that educational activities are designed for the purposes of enhancing learning outcomes, improving patient outcomes, and optimizing cost-effectiveness of organizational resources.

Choose the correct answer/s :

How will a resource person/ master trainer identify the needs of the learner?

    A. By asking them
    B. Testing them (pre and post)
    C. Gathering information from reports and records of achievements
    D. Conducting exercises on identifying learners preferred learning styles –Visual, Verbal, Tactile/Kinaesthetic,Auditory
    E. All the above (Answer: All the above)

5. Designing Learning Experiences

Before we begin with this session, let's recap the key aspects of active learning:

- Involve the learners in activities other than listening to teacher talk
- Allow learners to investigate, collaborate and work on projects
- Encourage them to do their own research
- Use role-play, debate and other active learning methods

Now, let's look at the key things which needs to be kept in mind while designing learning experiences:

a. Develop relevant and measurable learning outcomes:

According to Sandi Osters and Simone Tiu:

"Learning outcomes describe what students are able to demonstrate in terms of knowledge, skills, and values upon completion of a course, a span of several courses, or a program. Clear articulation of learning outcomes serves as the foundation to evaluating the effectiveness of the teaching and learning process".

SOURCE: https://www.gavilan.edu/research/spd/Writing-Measurable-Learning-Outcomes.pdf

Learning outcomes are statements written by the course writer keeping what participants will learn during their training. Remember that the statements are not written from the point of view of the trainer/ teacher, but what students will learn in that specific time span. As stated earlier, these statements should include a verb phrase using Bloom's taxonomy of educational objectives.

Remember that in academics, each course of 30 hours/ 2 credit will have a minimum of three learning outcomes. Completion of a set number of courses will help in completion of a program. Examples of learning outcomes might include:

- Knowledge/Remembering: define, list, recognize;
- Comprehension/Understanding: describe, explain, identify, locate, recognize, sort;
- Application/Applying: choose, demonstrate, implement, perform;
- Analysis/Analysing: categorize, compare, differentiate;
- Synthesis/Creating: construct, design, formulate, organize, synthesize
- Evaluation/Evaluating: assess, critique, evaluate, rank, rate

Learning outcomes follow the following template:

"At the end of the course, participants will be able to [insert verb here] + [insert knowledge, skills, or attitudes the participant is expected to develop here]."

For example:

At the end of the MDP, participants will be able to [design] + [learning experiences for learners in adult education settings]

Activity: Participants can assemble in small groups and work on three learning outcomes for the training they are planning to offer for their stakeholders. Facilitator shall help the group develop measurable learning outcomes

---

b. Select appropriate content, sequence, and teaching methods:

- Appropriate content is normally recommended by an expert peer group, board of studies and examination bodies. Some publishers develop textbooks based on curriculum suggested by the board of studies. Teachers/ trainers should use these textbooks to develop tailor made content for the learners
- Sequencing is the art of presenting the content is a logical order, normally beginning with simpler to complex or concept to practice Check the time available and allocate blocks of time for different parts of course or units
- Teaching methods will depend on the learner's preferred style, size of the class,and requirement of the course. Teaching methods include Lecture; Demonstration/ Simulation; Discussion/ Debates; Expert Talk; Lesson (question-answer format); Audio-Visuals; Role Play; Case Study; Field Trips, etc

c. Ensure that learners achieve "learning":

Be explicit about what you will test, when you will test and how you will test. Develop marking schemes/ rubrics and share with students. One of the main reasons why students fail is not that they cannot learn, but they have no idea how they are going to be evaluated. Formative tests should be designed to give feedback to teachers and to the learner on the extent to which their learning is taking place. This allows teachers to address the issues. Summative test is held at the end of the course.

Remember:
There are 3 domains of learning- cognitive, affective and psychomotor. A holistic lesson developed by a teacher requires the inclusion of all the three domains in constructing courses for students.

The cognitive domain encompasses six categories which include knowledge; comprehension; application; analysis; synthesis; and evaluation. The affective domain includes the feelings, emotions and attitudes of the individual. The psychomotor domain includes utilizing motor skills and the ability to coordinate them.

According to Freeman and Lewis (2008), assessment for cognitive domains include the following:
- Knowledge and Comprehension Level: MCQ, T/F, Matching, Fill in the blanks (heavily cued) or Short answers
- Application: Project
- Analysis: Case study
- Synthesis: Essay/ Composition, Video/ Audio Logs
- Evaluation: Report

Affective domain cannot be accessed through a written test as it can only find out whether a student remembers the attitude he should have. No written test can test a change in attitude. Hence observing behavior is the only valid assessment method. Simulations can be used to assess attitudes. Role play, discussion, and case studies can also help access the domain

For assessment of psychomotor domain, learners are required to create or do something to demonstrate the target skills. Initial theory (at the knowledge and comprehension levels) must be followed by supervised practice of skill. Levels of skill attainment include Imitate, Manipulate, Reproduce precisely, Articulate, and Naturalize. In each semester/ phase of learning, the levels can increase

---

d. Ensure fair access to learning and assessment:

- Don't ignore differences between members of your class that could affect performance (age, sex, ethnicity, etc)

- Unless constrained by factors outside your control (external examination bodies), you should offer variety of assessment methods
- Adult learners prefer collaborative learning to independent study, so use group project work and assignments as tools to assess
- Avoid favoritism

Group Work:

Massive Open Online Courses (MOOCs) have popularised the four quadrant approach consisting of (a) lecture/ video presentation, (b) reading of required material, (c) formative/ self assessment, and (d) learn more activities or information.

In the group work task, trainees are required to prepare content for all 4 quadrants for a 30 minute session. A PPT must be developed based on the 4 parameters.

---

6. Blending Teaching and Facilitation Skills

As we discussed earlier, there is a shift in teacher/trainer role:

- **From** knowledge transmitter, primary source of information, content expert, and source of all answers **to** learning facilitator, collaborator, coach, mentor, knowledge navigator, and co-learner
- **From** teacher/ trainer controls of all learning aspects **to** teacher/ trainer giving students more options and responsibilities for their own learning

Similarly, there is a shift in the student/learner role also:

- **From** passive recipient of information **to** active participant in the learning process
- **From** reproducing knowledge **to** producing and sharing knowledge
- **From** considering learning as a solitary activity **to** learning collaboratively with others

However, in India's context where the learning environment is slowly shifting from "sage on stage to guide on the side", blending some of the key transmission style teaching/training methods with active learning strategies is considered ideal.

If you are interested in knowing what this "sage on stage to guide on the side" is all about read Alison King's thought provoking article written in journal of *College Teaching*, Vol. 41, No. 1 (Winter, 1993), pp. 30-35, available at
https://faculty.washington.edu/kate1/ewExternalFiles/SageOnTheStage.pdf

You can also view YouTube video on the topic at:
https://www.youtube.com/watch?v=UsK-O4E4HB8

Lets see some useful Teacher- Centred Methods first, followed by active learning strategies which can be facilitated.

(a) Lesson Method:

The most common method is the lecture method. In this direct transmission style, teaching is followed by individual or group work, then the whole class plenary in which the teacher and the learners summarize the lessons learnt. Some ground rules are as follows:

- Plan all questions before the lesson\begin with question words such as who, what, when, where, why how?
- Plan a range of closed and open questions
- Use Pose-Pause-Pounce method to elicit responses
- Acknowledge each answer

(b) Differentiation:

Differentiation refers to the careful setting of tasks matching with the students knowledge level. It takes care of providing sufficient challenge to engage and progress in learning. Differentiation is all about ensuring success and preventing failure.There are three types: Differentiation by Task; Differentiation by Condition; and Differentiation by Standard.

Differentiation by Task is done through thematic work by a group on a particular topic (drawings, reviews, scientific explanations, recent articles, photographs, maps, further reading websites, editing of final product, etc). In Differentiation by Condition, the entire class gets the same task but the teachers groups them according to their levels and provides more close supervision to lower level students, offers advice to mid level, and allows higher level students to complete tasks without supervision.

Training Teachers/ Trainers through Micro Teaching Skills:

Dr. Allen evolved Microteaching in 1963. It's nothing but a teacher training method in which content is divided into smaller units. The teacher trainees are supposed to choose one unit and use only one teaching skill at a time. The resource person/ master educator provides immediate feedback to trainees and they can continue the process of replanning, re-teaching and re-evaluation.

There are six skills in micro teaching, namely Introduction; Probing Questions; Explanation; Stimulus Variation; Black/ white Board Writing; and Achieving Closure.

- Introduction: This is the first phase of session, where the key role of teacher/ trainer is establishing rapport with the learners.The teacher/ trainer helps the learner link with past experiences of students and provides an introduction to the subject matter through the use of appropriate devices/ techniques like questioning, examples, etc

- Probing Questions: Probing questions are those which help the pupils to think in depth about the various aspects of the problem
- Explanation: It involves the ability of a teacher/trainer to describe logically 'How' , 'Why' and 'What' of concept.
- Stimulus Variation: While probing or explaining, it's important for the teacher/ trainer to show some movement, gestures, change in voice, etc. Pausing and encouraging student's physical participation is also part of stimulus participation
- Black/ white Board Writing: It's important that the text matter should be legible, well aligned, and spaced properly. Highlighting and summarising the main points is very important
- Achieving Closure: This is the last phase of the session where the teacher consolidates all the major points covered during the lesson. Opportunity is provided by the teacher/ trainer to the pupils for linking the present knowledge with the past knowledge

---

Exercise/ Demonstration of Micro Skills:

In the previous group work, you must have already created content.

In this practice session, each group member should choose 1 micro teaching skill to exhibit for the larger group. The facilitator shall provide feedback

---

Now let's move on to discuss how to create active learning environment through facilitation

Do you know that *we* remember only 20% of what we hear; 30% of what we see; 50% of what we see and hear; but we will remember 90% of what we see, hear & do if taken together. This creating an active learning environment is crucial for achieving learning outcomes. There are six skills which are important for facilitating active learning, namely presenting information, giving demonstration, suing visual aids, supervising learning activities, managing flow of activities and managing the learning environment:

a) Presenting information: A session should have introduction-main presentation (lessons)- activities- and plenary. You can capture audience attention and interest by introducing them to what they are going to learn. Few important things include clarity and pitching at appropriate level; presenting ideas/ concepts by breaking down content in to meaningful segments, and linking in logical order; keeping the content in limited length interspersed with questions and relevant activities; offering student related examples; and constantly checking the understanding

b) Giving demonstration: Acquisition of new skills is often possible through demonstration. When preparing for demonstration, ensure all students can see what you are doing; plan a strategy to keep students busy and involved; and stress the importance of skill to enhance motivation

c) Using visual aids: Choosing aids carefully. Make sure that the aids should not distract your audience. Show appropriate audio- video and be present in class.

d) Supervising learning activities: Supervising activity based learning is very important. For example, while using role play (normally an affective domain learning objective), your task is to make the students understand the feeling of a victim or client. Hence carefully supervise the team. Debriefing is also essential (use adjectives such as embarrassed, alone, etc). While small group tasks are given, work can be differentiated. Allow a certain amount of classroom noise and manage time. While undertaking field trips, remember that the health and safety of participants is paramount. Hence a pre-visit inspection is essential.

e) Managing flow of activities: There are three phases in managing flow of activities, namely starting, transitions and ending. Start the class with routines such as stating learning outcomes and creating a climate of learning through motivation. Transitions are basically how the trainer/ teacher moves from one activity to another. Here there is a requirement of awareness of timings as the class needs ample time to complete activities. Be there with slower groups so that they complete on time (also offers them encouragement). Endings refer to summarising the session, inviting questions, testing objectives, linking current learning with next session, and most importantly ending on time

Exercise/ Demonstration of Micro Skills:

In this practice session, the focus should be on activity based instruction. Follow all the 1-5 skills of facilitation mentioned above

f) Managing the learning environment: Though the learning environment usually refers to training centre location and class size, it is important to note that students own motivation; and trainers/ teachers emotional intelligence play a crucial role. Making activities worthwhile in themselves and reminding students of the linkage with course learning outcomes are the basic aspects. However, being a model professional is quite important for the trainer/ teacher. Becoming hostile, showing anger, using sarcasm, getting personal are all poor classroom management practice resulting in low motivation of students. Remember to acknowledge the students. Appreciation is key to success

7. Assessment for Learning and Testing

Assessment for learning (AFL) is a formative process, which starts with sharing learning objectives/ outcomes well in advance. It also includes teacher/ trainer sharing expectations and standards required. One of the most important aspects of AFL is that students are involved in their own assessment. Teacher provides constructive feedback and creates an air of confidence in the classroom.

For example, at the end of each session, there can be some assessment for learning to know how much the student has learned. Trainer can use clickers, and other strategies like polling or asking True or False kind of questions or 3-2-1 reflection technique.

Let's take a 3-2-1 now:

State
- 3 learnings from what was presented so far….
- 2 examples of how the ideas could be implemented...
- 1 unresolved area / muddiest point so far….

Assessment for testing on the other hand is a summative exercise of ascribing numbers (quantifying) by passing a written judgment about performance (quality) of a student at the end of the course. Using a descriptor along a 5 point scale (not at all, rarely, sometimes, often, always) will help in quantifying qualitative behaviours and skills. Principles of validity, reliability, fairness, and authenticity are crucial aspects of assessment for testing. For a test to be valid, it should only measure what it claims to measure.

For example:

If the learning outcome and session you conducted focussed on remembering, it is not correct to ask questions related to synthesis. Reliability refers to the consistency of the assessor while making judgements. The only way to improve reliability is to have another assessor sit on the same. There cannot be 100% reliability. However, by making clear to students what will be tested and with what criteria we can reduce flaws. Fairness refers to the establishment of reasonable good conditions to test the skills. You can prepare learners for tests by providing study skills and test taking skills as co-curricular activity in/ outside class hours. You may have to help oral learners to develop written skills or a lethargic learner acquire time management skills or develop strategies for self improvement.

Remember:

The different modalities of assessment include
- Question and answer
- Short test
- Skill assessment\observation
- Projects
- Assignments
- MCQ/ Match the Following/
- Fill in the Blanks
- Presentations

Summative tests assess the learners achievement of agreed learning objectives for the whole programmer in phases/ semesters. Teachers pass judgment on overall attainment using specified criteria. There are two ways to measure students' performance: (a) Criterion-Referenced Assessment (CRA) and (b) Norm Referenced Assessment (NRA). The CRA measures students' performance against explicit and well understood criteria. So if all students reach the required standards then all pass. If they fail to achieve the required standards, then all fail NRA is designed to rank students on an order of merit.

Now let's try to differentiate formative and summative assessment:

Formative	Summative
In-class discussions	Instructor-created exams
Clicker questions	Standardized tests
Low-stakes group work	Final projects
Weekly/ unit quizzes	Final essays
Presentation	Final presentations
Assignments	Final reports

Source: Trumbull and Lash (2013)

How to develop test questions?

(a) Questions for Essays:

An essay test consists of a small number of questions to which the student is expected to recall and organize knowledge in a logical manner. An essay test item can be an extended response (long answer) item or a short answer item. Lets see some examples:

Extended Response
- Compare the constructivist and behavioural school of thought in education with suitable examples (10 Marks/ 20 minutes)

Short Answer
- Identify two characteristics of adult learners. (2 marks/ 5 minutes)

(b) MCQ Setting:

The multiple choice item consists of the stem, which identifies the question or problem and the response alternatives or choices. Usually, students are asked to select the one alternative that best completes a statement or answers a question.

For example

Item Stem: Which of the following is least effective in learning?
Response Alternatives: a. Dictation of Notes b. Seminar c. Project d. Group Work

(c) Authentic Assignment/ Project/ Portfolios:

Authentic assignments, projects and portfolios aim to evaluate students' abilities in 'real world' contexts. In other words, students learn how to apply their skills to authentic tasks and projects. Authentic assessment goes beyond rote learning and passive test-taking. Instead, it focuses on students' analytical skills; ability to integrate what they learn; creativity; ability to work collaboratively; and written and oral expression skills

(d) Demonstration:

Many educators find demonstrations most relevant when students know just what is expected. For this reason, teachers should clearly define standards and expectations. Educators use rubrics, or established sets of criteria, to assess a student's work. Rubrics help measure a stated objective (performance, behavior, or quality); use a range to rate performance; and contain specific performance characteristics arranged in levels indicating the degree to which a standard has been met.

> *Exercise: Suppose your course consists of 50 marks. 10 marks are assigned for internal and 40 for external exams. Read the following resources:*
>
> *https://ctl.yale.edu/sites/default/files/basic-page-supplementary-materials-files/formative_and_summative_assessment_handout_0.pdf*
>
> *https://www.k-state.edu/ksde/alp/resources/Handout-Module6.pdf*
>
> *And:*
> 1) *Create formative assessment protocol using a mix of short answer and MCQ methods*
> 2) *Create summative assessment protocol using a mix of Extended response (long answer), authentic assessment and demonstration methods*

8. Evaluation

Following are some of the important roles of the member of Evaluation Cell of the Training Centre/ HEI:

- Appointment of examiners, moderators, and team leaders
- Examiner to prepare the question papers
- Moderators to check if marking scheme and the assessors marking are consistent
- One team leader is appointed for all courses in a particular semester of a program to check for consistency of question papers (across all the courses). Adjustments have to be made to achieve consistency for the whole cohort
- Examination secretary prepares mean, medium, and mode of marks obtained for each course and the program in general (for statistical purpose, and ranking students)
- Cell members take responsibility to check and double check result sheet
- A qualitative report on students performance, marking scheme and question paper can be prepared under "exam team leaders report"
- A feedback session with the learners is arranged when they come to collect the grade. Students may discuss the results and spell out the emotional and remedial support needed. Institutions should offer comfort and constructive guidance to students who need it (especially to 'D' graders).
- Infact, if guidance is given during internal summative assessment most students can achieve their milestones easily
- Once in 5 years, a formal evaluation report on the programme can be generated by making use of feedback already available

This session is going to be on the evaluation and its role in training/ higher education. Evaluation seeks to make judgments on the relevance, effectiveness, efficiency, and impact of the academic programme on the learner. In order to do evaluation, interviews are conducted along with obtaining extensive feedback from various stakeholders during various occasions in an academic cycle. The final product will be a formal evaluation report on the programme. The following type of feedback is considered in evaluation:

- Students feedback
- Results of formative and summative tests
- Feedback from parents
- Observation of colleagues
- Conversation with other stakeholders such as alumni, employers, public intellectuals, subject experts, etc

According to Ian Barker (2006), the following questions are asked with different stakeholders in the evaluation process:

Introduction	Main Questions	Whom to Ask?
Context	• Did the aims of the course meet the needs of the students?	Students
	• Did the course contents prepare them adequately for summative test and will it qualify for employment?	
Input	• Did the learners bring necessary competencies with them or did we over/underestimate their ability?	Teachers
	• Were the teachers skilled to deliver the curriculum? • Were the time and physical resources stated in the curriculum available to students and teachers?	Students
Process	• Did the teachers understand and make full use of the curriculum documents? • Where there sufficient opportunities built in to the programme for student and teachers to give feedback on the achievement of course objectives	Teachers and Students
	• Did the teachers adopt the teaching strategies suggested in the curriculum documents? • Were the formative and summative tests undertaken by the leaners reliable, valid, and authentic ?	
Product	• How many students passed and how many failed?	Exam Cell
	• How do this year's results compare with last year's ?	
	• What are the views of learners on the outcome of their courses and reasons for these ?	Students
	• How do employers feel about the learners entry behavior? • Has the programme met the employer expectations?	Current/ Future Employers

Based on the data, a formal report is prepared and presented for further action by the management. The template of the report as suggested by Ian Barker (2016) is shared here:

I. Introduction
        a. Context
        b. Input
        c. Process
        d. Product
II. Methodology
        a. Structured Interviews
        b. Survey/ Checklists
III. Data
        a. Data Presentation
        b. Reflections
IV. Conclusion

Note for facilitator:

For this session, ask the participants to work in small groups to conduct an informal evaluation on three of the parameters- namely context, input and process with respect to the current training they are undergoing. The participants can make a group wise oral presentation.

9. Professional Development

Professional development refers to a combination of processes namely self-evaluation, reflection, peer-learning, refresher training, collaborative goal setting and performance appraisal to grow in the professional space. Self evaluation is intended not to pass a judgment, but to identify areas that you could develop. The whole exercise is triggered by the teacher/ trainer. Reflection guides teachers to self-dialogue and inquiry that lead the decision-making process within teaching-learning contexts. Peer-learning is a process in which a novice teacher/ trainer is paired with a seasoned professional, or a senior colleague with a stronger skillset in a particular area in which the novice needs improvement. They work together for a year with the goal of improving the less strong novice trainer/teacher's instructional skills. Refresher training is an aspect of retraining taken by an already qualified teacher/ trainer with the intention of updating skills and/or knowledge to a changed standard. By attending online/ offline courses, conferences, seminars, PD workshops, a teacher/ trainer can keep him/herself updated to changed context. Collaborative goal setting and performance appraisal is a twin activity in which the supervisor and supervisee collaboratively work on setting goals for a period of time. Usually it starts with a beginning of year goal setting, followed by timely check-in at different points of time, and ends with a formal appraisal. We will look at evaluating teaching practice and goal setting as two crucial professional development strategies for sure success.

Evaluating Teaching Practice:

According to Ian Barker (2006), the following steps can taken for self-evaluation of teaching process:

(a) Look at Students' Performance:

- *Are the students of your course able to meet the standards of the course you laid down*
- *Ask students through a survey about the course content, your teaching skill and changes needed in your methods*
- *Compare results with previous batches*

2. 360 Degree Formal Appraisal

- *Initial Meeting (suggest how you may be helped by the institution)*
- *Setting the Goal [see Annexure-2]*
- *Observations and check in meeting with mentor once in every quarter to discuss progress in the goals set*
- *Appraisal Interview (current performance is discussed and performance targets are agreed for the next time period)*
- *Appraisal Report provided by the supervisor*

3. Obtain feedback from others who know your work

- *From colleagues who can shape you*
- *From parents*
- *Academic leaders*

Exercise:

Individual trainers/ teachers can do a self reflection to list their concerns and prioritize action using Annexure-3

Lets see an example:

Listing Concerns:

1. Not marking on field work recordings within the stipulated time (feedback from student)
2. Mediocre class result (feedback from management)
3. Less use of supplementary resources (feedback from student)
4. Lessons end abruptly (feedback from student)
5. No contribution to other activities (feedback from management)
6. Non-professional relationship with students (feedback from students)

Prioritizing Actions:

- I will mark field work recordings on time (4)
- I will find out why student performance was way below expectations and I will take remedial action (1)
- I will ensure that my class gets supplementary readings well before time (5)
- I will plan plenary sessions in to all my classes and manage time more effectively (3)
- I will set up a volley ball club for students that will rum on every Tuesday after college time (6)
- I will start new year by spelling out the ground rules for classroom behavior. I will avoid being over familiar with the children (2)

Annexure-1: Training Need Assessment

Section A: Personal Competency

Rate these factors according to how you feel about your skill to job level.

(1= Poor Competency; 2= Average Competency; 3= Above Average Competency; 4= Highly Competent)

Skills	1= Poor Competency	2= Average Competency	3= Above Average Competency	4= Highly Competent
Written Communication				
Public Speaking				
Team Work				
Organisational Ability				
MS Office				
What is your overall competency to handle your current scope of work?				
What is your opinion on your mentors/ supervisors competency?				

Section B: Training Requirement

Rate these factors according to how you feel about your skill to job level (1= Yes; 2= No)

	Yes (1)	No (2)
Do you think that a training module on the life skills mentioned in section A is required for employees?		
Would you attend training workshops offered by our centre?		
Would you like to be updated on training workshops through our newsletter?		

Section C: Date and Time Preference

How long do you like the training workshop to last?

a) 3 days

b) 4-5 days

c) 6-7 days

What days would you prefer for a training workshop (multiple options)

a) Monday

b) Tuesday

c) Wednesday

Annexure-2:

Priority Number	Area/s of Improvement	Action to be Taken	Target Date	Criteria for Success
1				
2				
3				
4				

Remarks of Supervisor/ Mentor at Q1	Annotation of Supervisee at Q1
Remarks of Supervisor/ Mentor at Q2	Annotation of Supervisee at Q2
Remarks of Supervisor/ Mentor at Q3	Annotation of Supervisee at Q3

Final Remark of Supervisor/ Mentor:

Annexure-3: Listing Concerns and Prioritizing Action

Concerns	Priority Action

★★★★