

Use of modern technique in 21st century's Teacher Education

HANIN BADSAH

UNIVERSITY OF KALYANI

Abstract

Various type of modern technique is now broadly used in educational world. Teacher are popularly used this type of technique. Teacher use modern technique for making teaching learning process simple and interesting. In teacher education we can use this type of technique to gain effective skill for teaching. In our dynamic society we need to change our teaching technique. As a teacher we require to modern technological knowledge and skills. A skilled teacher has various types of skills and techniques for providing successful teaching. So development and increase of skills and competencies of teacher required knowledge about modern technique. The knowledge of modern technique also required for pre-service teacher during their training programme, because this knowledge will helps a prospective teacher to know how to teach in a better way in classroom. The perspective teacher can be applied this knowledge in future for the betterment of the students. Now a day are transforming schools and classrooms a new look by bringing in new curriculum based and teach through different modern technique. Teachers can use educational technology for the betterment of our future generation. Teachers must know the use of modern technique and know that how to present their subject areas, which is help the learners for learning more effectively. So, the knowledge of modern technique is most important for the both prospective teachers as well as in-service teachers also. In this paper discussed about use of modern technique in 21st Century's teacher education.

Keywords: Why do we use modern technology in teacher Education, Discussion, Conference, Symposium, Panel Discussion, Team Teaching, Individualized instructions, Computer Assisted Instruction, Supervised study, Effect of modern technique in 21st century's education.

Introduction: Teaching methods can be defined as ways of organizing the learner's cognitive activity to ensure the acquisition of knowledge, skills and attitude necessary for all round growth of students. The best use of modern techniques in education can make the process of instruction more successful. It helps the student obtain a better understanding of the phenomena. He learns by exciting a high degree of interest. This interest can only relieve the teacher by purely mechanically lecturing all the time. The problem of improving teaching methods through the use of modern techniques is strongly associated with curriculum development and teacher training. There are different type of techniques and strategies at present which a teacher can use efficiently to get the message through, besides facilitating development of other aspects of a student's growth.

Major objectives of the study:

- To find out the roles of modern techniques use in 21st Century's Teacher Education.
- To discuss about major impact of modern techniques.
- To discuss about some of these modern technique.

Methodology of the study: This present study is fully secondary data based. Information has been collected from books, Articles, Journals, and Thesis etc. This study is descriptive.

Delimitation of the present study: Now a day we use various type of modern technique in our teacher education system, which are play many more role in our 21st century's teacher education system. But in a very short time, I just try to present, some modern techniques of teacher education and their role only in this study.

Why do we use modern technology in teacher Education: The classroom is now changing constantly from the traditional one, like from one way communication to two way communication. Now the teachers and students participate in classroom discussion. Now a day Education system is based on learner centric. For those the teacher should prepare to cope up with students by using different technology. After using this type of technique teaching learning process will become more effective and interested. For effective implementation of certain student centric methodologies such as project-based learning, discussion, team teaching, CAI etc which puts the students in the role of active, we can take a help from ICT. So for this reason modern technique is very much necessary in Teacher Education. Through teacher education every pre-service and in-service teacher should acquire the knowledge and skills of such technique.

Some Modern Techniques: There are various types of modern techniques which are use in our present teacher education system. These are- i) Discussion ii) Panel Discussion iii) Seminar iv) Symposium v) Team Teaching vii) Individual Instruction viii) Programmed Instruction ix) Computer-Assisted Instruction (CAI) x) Supervised Study.

- ❖ **Discussion:** It is defined as a learning experience in which students participate in a teacher-controlled, interactive process of sharing information and experiences related to achieving an instructional objective.

Structure of guided Discussion: The teacher must have a set of objectives or ideas that she/he wants to transmit to the student.

1. Introduction: This should be something that poses au or or narrates a current event to help get the discussion off the ground.
2. Discussion: The teacher should emphasis on the topic in discussion. She/he should pay attention and try to constantly evaluate the knowledge of the student.
3. Summary: The teacher should summaries each section before moving on.
4. Conclusion: The teacher should take a couple of minutes to review and recap what was enclosed in the discussion. This will assist the student grasp the "larger depiction". The teacher should also explain any questions.

Objectives of Discussion Method: The main objectives of using discussion is that-

1. Share information.
2. Clarify ideas.
3. Inspire interest.
4. Evaluate progress.
5. Develop self-confidence in expressing views.
6. Develop tolerance to views different from one's own.

- ❖ **Conference:** It is a meeting to large group organized to discuss current problems and it specifics to provide a workable solution. Basically conference is a meeting of individuals called together to engage in discussion with the aim of accomplishing a limited task within limited time.

Objective of conference: the following are the general objectives of the conferences focus to achieve the following Cognitive Objectives: The conference technique has the focus to achieve the following objectives-

- 1) To develop analysis synthesis and evaluation or creative abilities of the participant.
- 2) To develop critical and reasoning abilities.
- 3) To develop the abilities of expressing his own feeling and observations.
- 4) To develop the abilities to study in depth the facts, concepts and problems.
- 5) To develop the tendency to study a fact or concept in broader perspective.
- 6) To develop the tendency of emotional balance.

- 7) To respect and tolerate anti-ideas and criticism by others.
- 8) To develop the feelings of cooperation and freedom of thoughts.
- ❖ **Symposium:** Symposium technique is one of the effective techniques of higher learning. It is also an instructional technique which is used to attain higher cognitive and affective objectives.
 - The symposium technique give us a best device for notify an audience, crystallizing judgment and general preparing the listeners for arriving at decision, judgment or understanding.
 - Symposium defined as a meeting where expert in a given field can meet, present paper and discuss issues.

Objectives of Symposium: Main objectives of the symposium technique are given bellow:

- 1) To recognize and understand the various aspects of theme and problems.
 - 2) To increase the ability to decision and judgment regard a problem.
 - 3) To increase the values and feelings regarding a problem.
 - 4) To allow the listeners to form policies regarding a theme or problem.
- ❖ **Panel Discussion:** A panel discussion is designed to provide an opportunity for a group to acquire knowledgeable about a specific issue or topic. The knowledge will given by experienced person on such specific topic. It is a specific design which used in a meeting or conference. It is a special discussion about special topic in front of large audience. This discussion may help the audience to understand the problem or specific topic.
- A technique which occurs in the presence of the audience to discuss a specific topic. It is instructional technique using a group of people.
 - A moderator will facilitate the panel.
 - Moderator will guides the panel and the audience
 - Basically three-four expert or practitioners in the field are responds to audience questions or some selected question which is selected by moderator.

Objectives of Panel Discussion: The objectives of the panel discussion are to-

- 1) Provide information and new facts.
- 2) Analyze a problem from different angles.
- 3) Identify the values involved.
- 4) Give an opportunity to interact with experts in the field.

Principal Responsibilities of the Teacher:

- 1) Help the participants, issues or topics upon which to base a panel discussion.
 - 2) Ensure that all panelists and the moderator and to fulfill the responsibilities of their roles.
 - 3) Assist panelists and participants (when required) in preparation for the discussion by directing them to various source materials, authorities in the field, etc.
 - 4) Help the audience to understand the topic or discussing issue if needed.
- ❖ **Team Teaching:** Team reaching is an arrangement whereby two or more teacher. Cooperatively plan, teach and evaluate one or more class groups in appropriate and agreed upon reaching plan and in given length of time so as to take advantage of specific competencies of the team members.
- A method of coordinated classroom teaching involving a team of teachers working together with a single group of students. (wordnetweb.princeton.edu/perl/webwn)

Types of Team Teaching

- **Traditional team teaching-** is a model in which two teachers wi 1 ;thin a classroom take equal responsibility for teaching the students actively involved at all times. One may be teaching while the other n be writing notes on the board.
- **Supportive instruction-** is a second model of team teaching in which one teacher teaches the material and the other provides follow up activities.

- **Parallel instruction-** is another type of team teaching in which students are split into two groups and each teacher is responsible for teaching her group.
- **Differentiated split class team teaching-** involves splitting student into two groups based on achievement. One teacher provides remedial instruction to students who are struggling on a skill while the other provides enrichment to those who have grasped the skill.
- **The monitoring teacher-** one of the forms of team teaching. In this model, one teacher assumes the role of instruction while the other walks around the class and monitors students' behavior and progress. Various types of team teaching may be used within one class period.

Effects of Team Teaching:

- When team teaching is organized and carried out effectively, positive effects are felt by learners, parents and school faculty.
- Research shows that learner's ability using a team teaching approach have higher levels of achievement.
- There is increase contact with parents by teachers in a team teaching situation.
- Additionally, in school teacher are more satisfied with their job, which improved the work climate.
- ❖ **Individualized instructions:** where students' own needs are placed at the forefront of an instructor's teaching practices. Here individual ability and thought are most important which leads the student pace of learning.
- Individual instruction means one type of instructional technique where the content, instructional media, instructional materials are design according to individual or learner's interest and ability.

Five steps includes in individualization in the classroom. These ares-

- 1) Set clear and specific goals.
- 2) Make goals challenging and realistic.
- 3) Make goals dynamic and review on a regular basis.
- 4) Let students own their improvement.
- 5) Involve parents or academic advisors when needed.

Need for Individualized Instruction: Individualized instruction is a method which has an enormous potential in a country like India, where mass educational techniques have not been overly successful.

- 1) This method allows a student to proceed at his own pace, depending on his aptitude and past history of achievement.
- 2) Individualized instruction caters to the individual differences. Thus, slow, medium and gifted students can be placed on different but suitable program me based on their unique needs and abilities.
- 3) Individualized instruction helps an individual to develop his potential to the full.
- 4) The feedback provided at regular intervals helps the students gain mastery over the unit under study.
- 5) This method is best for remedial purposes as it can, by drill and practice or by tutorial, identify the weak areas of the student and provide appropriate learning experiences to suit him.

Computer Assisted Instruction (CAI): CAI is a systematic approach which develops the student's knowledge and skills. It provides instruction through tutorial, simulation activities, drill and practice, modeling, problem solving and gaming.

- CAI a program of instructional material presented by means of a computer or computer systems.(<https://www.britannica.com/topic/computer-assisted-instruction>)
- CAI is a self learning technique where computer is used to present the instructional materials and supervise the learning. It works as a tool to facilitate and improve the instruction.
- Basically CAI provides- text or multimedia content, multiple choice question, problems, immediate feedback, notes on incorrect response, summarize student's performance.

Modes of CAI: The various ways in which CAI can be used are called modes. Some CAI modes are discussed here:

- a) Drill and practice mode is a method of learning on the computer where the student becomes familiar with the use of a process by repetition, until it is invariably performed properly. For instance solving problems associated to Newton's laws after a class where the teacher explained the laws.
- b) Tutorial mode is a type of CM in which the computer interacts with the learner in a similar manner as to a tutor, engaging in a dialogue whose course based on the responses made by the students, for example pre-laboratory session on titration before actual laboratory work in this mode may be useful.
- c) Simulation deals with the representation of physical systems and phenomena by the computer. Information is entered in the computer to characterize the factors in the actual process and computer produces the information that represents the results of the process and the process itself. For instance in computer screen demonstrating the phenomena of radioactivity.
- d) In modeling mode, computer programmes can be used to build complex mathematical models and explore them quantitatively, rapidly and in detail. Modelling is a way of making a trial, a practice for reality that minimizes the penalties of error.
- e) Problem-solving mode enables a student to tackle a wide variety of problems and helps in developing problem-solving skills.
- f) Gaming mode is resorted to when the student is pitted either against the computer or another student in an educational game. It is very effective for teaching rules and procedures.

Choice of mode is an important guide. The choice of mode of CAI lies in the objectives not out for the learning situation. The learning situation is dependent on the content of instruction and learning activity.

- ❖ **Supervised study:** Supervised study means the study performed under supervision. In a real practice, when the students engage themselves in some task under the properly organized supervision of the teacher, the event is labeled as supervised study.
 - According to Bining and Bining (1952)- supervised study are, the supervision by the teacher of a group or class of pupils as they work at their desks or around their tables.

Teacher's role in providing the study environment:

- 1) Take responsibility for maintaining a pleasant study environment.
- 2) Help students formulate questions to direct their study.
- 3) Help students set objectives for the study session.
- 4) Locate and select resources in advance which students can use in their study.
- 5) Recommend resources to students suitable to their level of ability and understanding.
- 6) Direct students to resources which they might not otherwise find or might have difficulty finding.
- 7) Help students find pertinent information in the resource materials.
- 8) Control environmental conditions such as lighting, temperature, ventilation, and noise, so that students are free from distractions.
- 9) Maintain an orderly, businesslike study setting.

Importance of Supervised Study:

Supervised study is best useful in overcrowded classrooms and a tight, heavy curriculum. It is much importance in our Indian classroom. Every class is consisting of heterogeneous groups with average, bellow average and bright students. Thus it is very difficult for a teacher to cater to individual differences. Supervised study is remedied in this situation. It will provide an opportunity to study in the classroom under the direction of the teacher. Under the Group supervised study the teacher will get an opportunity to foster good study habits, to deal with study problems, and to relate to students as individuals.

Effect of modern technique in 21st Century's Education:

- Modern technique helps teachers in both pre-service and in-Service teachers training.
- Modern technique helps teachers how to interact with students.

- It helps to create effective teaching -learning environment.
- It helps to develop Teaching skill, helps in innovative Teaching.
- Modern technique helps teachers in preparation for teaching.
- Modern technique helps Teacher to communicate appropriately with their students.
- Modern technique helps Teacher to motivate students and growing interest in learning.
- Modern technique helpful for developing learning situations and present effective instruction.

Conclusion: Teaching profession is a highly respectable position in the society. As a teacher, he always ready to acquire new knowledge and skills. Every teacher must know uses of modern technique. It helps the teacher to present effective instruction in classroom. By using and acquire the knowledge of modern technique, student teacher will become effective teachers. We use modern technique in teacher education because we need to know how to use modern technique in our classroom. It is one of the major factors for the rapid changes in our education. So we should use modern technique in Teacher Education in 21st Century as because now teachers only can create a bright future for students.

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