1. We are at the beginning of stage 3 of the course on Audio Visual Education - Module III: Projected Aids.

2. You have completed two modules by now, namely Introduction to Instructional Design and Non-Projected Visual Aids. Now refer to your WORKBOOK and go through the objectives of this unit.

   (STOP FOR TWO MINUTES AND RESTART)

3. We presented Module I through sound slide system and Module II through self instructional, self paced, written instructional materials. This presentation is again a sound slide system, with a little variation, which you will notice when we proceed.

4. You might by now, understood the whole process of our systematic instructional design. First we have established the objectives. Then we organised content, to fit the objectives. Next, we selected media and methods with appropriate learning experiences to reach the objectives.

5. Why this sequence? Because audio visual materials are channels through which content stimuli are presented to the learner to reach the objectives.

6. STIMULI is presented to motivate, evoke a response, inform direct attention, guide thinking, evaluate and test for transfer.

7. You select the medium, channel or audio visual materials, through which the content will most likely to elicit the proper response that serves the objectives.

8. How do you propose to go about?

9. If motion is inherent in the subject, consider a motion picture, or perhaps a TV programme, if you have the resources.

   M III/1-1/SB
10. If motion is not important, consider audio visual materials that demands simpler skills, less time, least money, yet to do the job equally well.

11. Sometimes you can do well with a series of photographs or flat pictures, or

12. film strips or

13. a set of slides with or without sound

14. a series of transparencies.

15. or a combination of these to serve your purpose.

16. You may even go in for multi-imagery presentation like this unit which hopefully will motivate you better.

17. Remember that you will not, make something just because you have the hardware or physical facilities, unless your objectives and contents call for the specific medium.

18. Audio visual materials selected should serve the objectives and the content.

19. In addition the decision to select the audio visual aids may be based on your skills, time, money, equipment availability or convenience.

20. Each of the several types of audio visual materials makes certain unique contributions to improve your communication technique and subsequent learning.

21. REFER TO WORKBOOK, and answer questions 1 and 2. (STOP FOR 2 MINUTES AND RESTART).

22. Answer to question 1 will be Selection of audio visual materials depends on objectives and content.

23. Answer to question 2 is: The medium should elicit proper response that serve the objectives.

24. Among the audio visual materials you have so far covered are: photographs, graphs, charts, posters, felt board, magnetic board, chalkboard etc.
25. Examples of projected aids are:
   Slides, filmstrips, sound slides presentation, overhead transparencies, motion pictures, television, and multi-imagery.

26. Let us review some of these quickly.
   Take FILMSTRIPS AND SLIDES.

27. Both are projected aids, which can be made locally.

28. In the filmstrips, the series is a fixed sequence while in the case of slides, it can be a single picture, or a set of pictures.

29. The slide series are flexible:

30. We can replace missing or broken ones, and

31. Without much extra cost change the content and replace few of the frames;

32. We can also synchronise the picture with sound;

33. Use them for groups as well as individual study.

34. Advantages of the slides are:
   a. require least skill in filming;
   b. processing can be got done in a small studio or commercial processing is easy and cheap;
   c. result in colourful and realistic reproduction;
   d. easily revised and updated;
   e. increased usefulness with automatic projectors;
   f. can synchronise easily with taped narration;
   g. may be adapted to group or individual use, and
   h. sequence could be altered according to need.

35. Disadvantage could be:
   a. require special equipment for close-up photography and copying,
   b. the set can get out of sequence and
   c. causes problems of placement at times.

36. Film strips are closely related, but it is a continuous strip of pictures.
37. Problems in filmstrip making is that they require consistent composition and exposure.

38. Advantages of filmstrips could be:
   a. are compact and always in correct sequence;
   b. as in slides picture can be supplemented with captions;
   c. can also be supplemented with sound;
   d. also useful for group and individual study;
   e. instructor can control speed and narration and
   f. equipment operation is simple.

39. Disadvantages of filmstrips could be
   a. relatively difficult to prepare,
   b. are permanent in sequence and hence cannot be rearranged.
   c. require special equipment for close up photography and copying.

40. REFER TO WORKBOOK, Answer questions 3 and 4.
    (STOP FOR 2 MINUTES AND THEN RESTART).

41. Answer to question 3 is:
    a filmstrip with 30 frames.

42. Answer to question 4 is:
    useful for group as well as individual study.

43. OVERHEAD PROJECTOR AND TRANSPARENCIES.

44. An overhead projector is a versatile equipment that can be used with ease, and the teacher can make his own projection material without much equipment and extra skill.

45. The projector is used in front of the class room;

46. Moderate room light can be allowed, which enables the students to take notes during any presentation with overhead projector.

47. Practically overhead projector can be used combining it as a projector projecting visuals, and at the same time, writing on the transparency other informations, like a chalkboard and hence you can do away with chalk board, while using O.H.P.

48. The teacher can always face the class while using the overhead projector.

M III/1-4/SB.
49. We can disclose the visual material progressively in the classroom using the same visual, which is not possible for other projectuals.

50. We can use overlay and add information using the same transparency.

51. The advantage could be:
   a. information can be presented in a systematic sequence,
   b. projector is simple to operate;
   c. projection rate is controlled by the instructor;
   d. hand made transparency prepared by the teacher can be used;
   e. particularly useful for large groups;
   f. instructor can add further information on the transparency; and
   g. progressive disclosure technique and overlay technique possible.

52. Disadvantages are minimum:
   a. Transparencies are large sized, hence storage problem; and
   b. facilities and skills required more for advanced production.

53. REFER TO WORKBOOK and answer questions 5 & 6.

54. Answer to question 5 is
   The overhead projector is placed in front of the illuminated classroom and the instructor can face the trainees.

55. Answer to question 6 is:
   The transparency permits the instructor to add information on it.

56. MOTION PICTURE, Production of motion picture is costly and involves lot of work. It is a complicated process.

57. It is normally beyond the reach of many institutions and colleges.

58. It requires good amount of skill to produce movies.

59. It is one of the most effective medium.

60. You should consider the use of, or production of motion picture only when you consider that there is a need to show motion, and it cannot be shown by other means which are less costly.

M III/1-5/SB
61. You may also use the motion picture, when you want to show relationship and continuity.

62. In skill training, single concept loop films or short films are very commonly used.

63. Animation, slow motion, magnification, showing split frames or inserts are some of the special techniques which add to the usefulness of this medium.

64. Films certainly could bring definite changes in behavior with different special features and consistency in the presentation of facts and skills.

65. ADVANTAGES of motion pictures are:
   a. particularly useful when motion is involved or important;
   b. dramatic impact and effect on viewers;
   c. useful for both individual study and groups;
   d. ensures consistency and
   e. combines all advantages of other media.

66. DISADVANTAGES are:
   a. expensive in terms of time, equipment, materials and services;
   b. requires careful planning, production skill and equipment; and
   c. very difficult to obtain ready made materials to suit objectives.

67. REFER TO WORKBOOK and answer questions 7 & 8.
   (STOP FOR 2 MINUTES AND RESTART)

68. Answer to question 7:
   You may see the answer on the screen.
   You need use motion picture only when you consider motion is important and it cannot be shown by other means which are less costly.

69. Answer to question 8:
   The special features of motion picture are that it combines animation, slow motion, magnification, split frames and inserts.

70. TELEVISION

71. For our country, television is still a comparatively new medium for education and training needs.

M III/1-6/SB.
72. It is easy to produce TV programme compared to motion picture, but it is still in the crawling stage.

73. It is comparatively difficult to maintain and costly too.

74. It combines in it, all other audio visual materials including motion pictures.

75. It has all the facilities and educational values, which a motion picture has, but motion picture can be used for large groups. Television when used for large groups require number of TV sets.

76. Very difficult to be used for self study, as the production of video tapes in our country has not taken to such stages in U.S.A or U.K.

77. Other audio visual materials are ends of production, but when they are used with and integrated into Television, they are means to an end.

78. Ease of preparation, required skills, physical facilities, time and cost are other important factors that influences its choice.

79. ADVANTAGES COULD BE:
   a. permits integration of best audio visual media to serve a purpose;
   b. permits shifting from one mode to another during programme;
   c. playback capability of video recording permits analysis of the content on the spot;
   d. permits immediate feedback, in teacher training programmes and other uses where immediacy is important; and
   e. flexibility in production.

80. DISADVANTAGES COULD BE:
    a. still a very costly medium, compared to other inexpensive ones;
    b. maintenance of equipment cumbersome;
    c. obtaining spare parts is still very difficult and
    d. do not exist alone.

81. REFER TO WORK BOOK, and answer question 9 and 10. (STOP PRESENTATION FOR 2 MINUTES AND RESTART)
82. Answer to question 9 is:

** The major advantages of Television over motion picture is that Television can be used as an immediate feedback or simultaneous use in such instructional use as medical education and other areas, where direct access is impossible or not desirable.

83. The answer to question 10 is:

In teacher training programmes, the Television could be used for getting immediate feedback to teacher trainees and analysis of performance.

84. MULTI MEDIA AND MULTI IMAGERY.

85. Multi media is still one of the mediums that is inaccessible to the instructional world in India.

86. So also multi imagery is a new concept to our education and trainees population.

87. How many of you have had the previous experience to watch either multi-media or multi imagery presentation either for doing it yourself as an instructor or a trainee before? Perhaps not even 1% among you had the opportunity.

88. Yet you must know what it is, and how effective it could be in any teaching-learning situation. An effort has been made by us in this course to use multi media and multi imagery presentation.

89. Can you say what multi media and multi imagery are?

90. Multi media refers to the sequential use of a variety of instructional materials in presentations or the availability of a number of resources in learning packages or other self-study programmes.

91. Multi imagery is a series of visuals simultaneously shown from different equipment—say three slide projectors; a motion picture projector with two slide projectors or film strip projectors; a motion picture and overhead projector with slide or film strip projector or other equipment to show more than one or two interrelated images or visuals at the same time on the screen.

92. If a single visual aid can do the job satisfactorily, either multi-media (MM) or multi imagery (MI) need not be used as a novelty.

93. But combinations of visuals used together for specific purpose either concurrently or in succession are very effective.

M III/1-8/SB.
94. When you project two or more pictures, simultaneously on adjacent screens, the term used is multi imagery (MI).

95. Brief motion picture inserts, overhead transparencies, or slides for special impact or to carry appropriate concurrent information may be presented with a taped narration.

96. Comparisons, relationships, perspective views are some of the examples of the advantage.

97. It creates high level of motivation and interest in the subject.

98. Large amount of information in short time could be effectively presented to a large audience.

99. Programming multimedia or multi imagery is a very highly skilled and complicated job requiring lot of experience and effort.

100. A learning package that contains cassette recording (Audio) filmstrip and/or slides, worksheet, discussion session — with a set of transparencies, all designed to serve a set of objectives for topic is a good example for independent study or large group study with multi-media package.

101. The rationale behind multimedia usage is two fold.
First, different media are necessary to serve different instructional purpose.
Second, it is recognised that students have different learning styles and alternative ways of learning with a variety of resources be made available to them.

102. A discussion session among yourselves on how to select different media for specific instructional needs at the end of this unit, will be useful.

103. Many of us choose media on the basis of what is comfortable to us. This is a subjective choice. Often we do not have consideration to the objective or the needs of the students or their learning style. Can you think of clear cut guidelines for media selection?

104. Most media can perform most instructional functions, while no single medium is likely to have properties that makes it best for all purposes.

M III/1-9/98.
Media decisions are not based on gross requirements, but for individual instructional objectives that collectively make up the topic.

Now REFER TO YOUR WORKBOOK, and answer questions 11 and 12.

(STOP FOR 2 MINUTES AND RESTART)

The difference between multi media and multi imagery is that, in the former, we use a combination of media—audio, video, different visuals, different methods such as discussion, student interaction, workbook etc., whereas in multi imagery, you have different images projected on to adjacent screens at the same time concurrently.

Answer to question 11 is C and is on screen.

Answer to question 12, students have different learning styles. Therefore it is necessary to provide alternative ways of learning with a variety of resources.

We come to the end of this unit, and you are advised to have discussion on the topic presented, before we proceed to the next unit on Projection principles.

M III/1-10/58.
Module III  
Projected Aids  
Unit 1  
Kinds of Projected Aids

**Instructional Objectives:**

1. State two fundamental aspects on which the selection of audio visual material depend.
2. State the two primary functions of instructional media.
3. Distinguish between slides and filmstrips.
4. List two advantages of slides when used in instruction.
5. Enumerate five advantages of filmstrips.
6. Write two disadvantages of filmstrips.
7. Write two disadvantages of slides.
8. State two advantages of overhead projector.
9. Explain reasons that necessitate the use of motion pictures.
10. List four special features of motion pictures.
11. Write two disadvantages of motion pictures.
12. Illustrate five techniques which can enhance the utility of motion pictures as media.
13. State two advantages of television over motion picture.
14. Point out two specific advantages of television in teacher training programmes.
15. Differentiate between multi-media and multi-imagery presentation.
1. Selection of audio visual material mainly depends on
   a. the hardware and physical facilities
   b. the objective and content
   c. the objective only
   d. the content only

2. The purpose of using an instructional medium is to:
   a. Communicate the content stimuli not essentially related to the objectives.
   b. Elicit proper response that serve the objectives.
   c. Present your skills to your audience, on making audio visual materials.
   d. Use all the available hardware in your Institute to satisfy the administrators.

3. Which one of the following has a permanent sequence of visual that cannot be changed?
   a. a set of slides
   b. a filmstrip with 30 frames
   c. a set of transparencies.
   d. None of the above.

4. Which one of the following is a common advantage for both filmstrips and slides?
   a. increased usefulness with automatic projectors
   b. can be operated without any instructor
   c. useful for group as well as individual study.
   d. easily revised and updated without changing the entire content.
5. You do not have facilities for darkening the room. You are given the following projectors to be used in the illuminated room, and you have to use them, facing the class. Which one you will select?
   ___ a. epidiascope
   ___ b. slide projector
   ___ c. filmstrip projector
   ___ d. Overhead projector

6. You are not provided with a chalkboard for taking a class, but given the following aids and the equipment to use them. Select the aid that will permit you to add information that you want to, while using them.
   ___ a. transparency
   ___ b. slides
   ___ c. 16 mm film
   ___ d. filmstrip

7. State the most important condition of selecting a motion picture for a topic of your instruction.

8. The motion picture combines some of the following special features not available for slides and filmstrips. Tick items that are right.
   ___ a. captions with picture
   ___ b. animation
   ___ c. slow motion
   ___ d. cut sections of diagrams
   ___ e. magnification
   ___ f. split frames
   ___ g. colour
   ___ h. inserts

9. Television and motion pictures are both mediums involving motion. In what way do you consider that Television plays a different role than motion picture in this respect?
10. In what way could you use the medium television in teacher training programmes?

11. The difference between multi-media and multi-imagery is that:
   - a. in multi imagery programmes we use different mediums whereas in multi media we use the same medium.
   - b. in multi-media we use different mediums whereas in multi imagery we use the same medium.
   - c. in multi media we use a combination of different media and methods, while in multi imagery we use adjacent screens to project different images at the same time.
   - d. in multi media we eliminate the teacher, while in multi imagery we use the teacher for presentation.

12. Why should we provide alternative ways of learning and a variety of resources to the students.
1. Selection of audio visual material mainly depends on
   a. the hardware and physical facilities
   b. the objective and content
   c. the objectives only
   d. the content only

2. The purpose of using an instructional medium is to:
   a. Communicate the content stimuli not essentially related to the objectives.
   b. Elicit proper response that serve the objectives.
   c. Present your skills to your audience, on making audio visual materials.
   d. Use all the available hardware in your Institute to satisfy the administrators.

3. Which one of the following has a permanent sequence of visual that cannot be changed?
   a. a set of slides
   b. a filmstrip with 30 frames
   c. a set of transparencies
   d. none of the above.

4. Which one of the following is a common advantage for both filmstrips and slides?
   a. increased usefulness with automatic projectors
   b. can be operated without any instructor
   c. useful for group as well as individual study.
   d. easily revised and updated without changing the entire content.
5. You do not have facilities for darkening the room. You are given the following projectors to be used in the illuminated room, and you have to use them, facing the class. Which one you will select?
   ____ a. epidiascope
   ____ b. slide projector
   ____ c. filmstrip projector
   ____ d. overhead projector

6. You are not provided with a chalkboard for taking a class, but given the following aids and the equipment to use them. Select the aid that will permit you to add information that you want to, while using them.
   ____ a. transparency
   ____ b. slides
   ____ c. 16 mm film
   ____ d. filmstrip

7. State the most important condition of selecting a motion picture for a topic of your instruction.

8. The motion picture combines some of the following special features not available for slides and filmstrips. Tick items that are right.
   ____ a. captions with pictures
   ____ b. animation
   ____ c. slow motion
   ____ d. cut sections of diagrams
   ____ e. magnification
   ____ f. split frames
   ____ g. colour
   ____ h. inserts

M III/1-2/CT
9. Television and motion pictures are both mediums involving motion. In what way do you consider that Television plays a different role than motion picture in this respect?

10. In what way could you use the medium television in teacher training programmes?

11. The difference between multi-media and multi-imagery is that:
   - a. in multi imagery programmes we use different mediums whereas in multi media we use the same medium.
   - b. in multi media we use different mediums whereas in multi imagery we use the same medium.
   - c. in multi media we use a combination of different media and methods, while in multi imagery we use adjacent screens to project different images at the same time.
   - d. in multi media we eliminate the teacher, while in multi imagery we use the teacher for presentation.

12. Why should we provide alternative ways of learning and a variety of resources to the students.
AUDIO VISUAL EDUCATION

KEY TO CRITERION TEST

Module III  Projected Aids
Unit 1  Kinds of Projected Aids

1. Selection of audio visual materials mainly depends on
    ___ a. the hardware and physical facilities
    * b. the objective and content
    ___ c. the objectives only
    ___ d. the content only

2. The purpose of using an instructional medium is to;
    ___ a. Communicate the content stimuli not essentially related to the objectives.
    * b. Elicit proper response that serve the objectives.
    ___ c. Present your skills to your audience, on making audio visual materials.
    ___ d. use all the available hardware in your institute to satisfy the administrators.

3. Which one of the following has a permanent sequence of visuals that cannot be changed?
    ___ a. a set of slides
    * b. a filmstrip with 30 frames
    ___ c. a set of transparencies
    ___ d. none of the above.

M III/1-1/KCT
4. Which one of the following is a common advantage for both filmstrips and slides?
   - a. increased usefulness with automatic projectors.
   - b. can be operated without any instructor
   - * c. useful for group as well as individual study.
   - d. easily revised and updated without changing the entire content.

5. You do not have facilities for darkening the room. You are given the following projectors to be used in the illuminated room, and you have to use them, facing the class. Which one will you select?
   - a. epidiascope
   - b. slide projector
   - c. filmstrip projector
   - * d. overhead projector

6. You are not provided with a chalkboard for taking a class, but have the following aids and equipment to use them. Select the aid that will permit you to add information that you want to, while using them.
   - * a. transparency
   - b. slides
   - c. 16 mm film
   - d. filmstrip

7. State the most important condition of selecting a motion picture for a topic of your instruction.
   When motion is most important and cannot be shown by other means which are less costly.
8. The motion picture combines some of the following special features not available for slides and filmstrips. Tick items that are right.

   a. Captions with pictures
   * b. animation
   * c. slow motion
   d. cut sections of diagrams
   e. magnification
   f. split frames
   g. colour
   h. inserts

9. Television and Motion pictures are both medium involving motion. In what way do you consider that Television plays a different role than motion picture in this respect?

   Television is very useful for immediate feedback.
   In certain fields, complicated instructional events can be shown to large population where direct access is impossible or not desirable.

10. In what way could you use the medium television in teacher training programme?

   For getting immediate feedback to teacher trainees on their performance and analysis of performance.

11. The difference between multi-media and multi imagery is that:

   a. in multi imagery programmes we use different mediums whereas in multi media we use the same medium.
   b. in multi media we use different mediums whereas in multi imagery we use the same medium.
   * c. in multi media we use a combination of different media and methods, while in multi-imagery we use adjacent screen to project different images at the same time.
   d. in multi media we eliminate the teacher, while in multi imagery we use the teacher for presentation.
12. Why should we provide alternative ways of learning and a variety of resources to the students?

Students have different learning styles and it is necessary to provide alternative ways of learning with a variety of resources. Different media are necessary to serve different instructional purposes.