

AUDIO VISUAL EDUCATION

MODULE-I: INTRODUCTION TO INSTRUCTIONAL DESIGN

UNIT V: LEARNING & VISUAL AIDS (A SUPPLEMENT TO UNIT IV)

A PROGRAMMED TEXT

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1. What is meant by the word Learning?

Is it a difficult question? No. It is associated with very many different activities and interests. e.g. learning to operate a lathe, learning to repair a radio, learning to change the spark plug of a car, learning to drive a car, learning to solve a quadratic equation, learning to identify a sample chemical, learning to write shorthand, learning to appreciate Tamil classical music or learning Tirukural.

Learning is a word used in connection with very many different

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2. Sometimes it takes time to understand what we are learning.

We are unable to catch what is being learned? It is therefore, necessary to concentrate upon the results of learning.

Which of the following is the best way of finding out whether learning has taken place?

- a) Assuming that if a person has been taught, it follows that he must have learned.
  - b) Observing what the person can now do which he could not have done before.
  - c) Asking the person if he has learned.
  - d) The person says, that he has learned.
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3. We can also say from the above, that learning is assumed to have taken place if a person now behaves in a different way than in the past, i.e. if his behaviour has changed.

Behaviour is defined as "the observable responses of the organism".

4. Educational Psychologists are interested in the study of changes in behaviour and since LEARNING may be described in terms of changes in behaviour, we can say that Educational Psychologists are interested in

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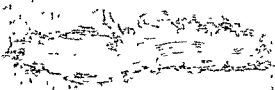
5. Most of us usually spend much of our time watching the behaviour of other people. A psychologist also studies behaviour and changes in behaviour but he tries to do the scientific study of behaviour. We must then ask ourselves what is meant by the word 'scientific'.

A subject is said to be scientific if it makes use of scientific methods.

Thus Psychology may be described as a scientific study when psychologists make use of the .....

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6. Scientific method involves observing, experimenting and building up theory.



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6. ....Contd.

Let us now examine what 'observing' means. A scientific observation must be accurate and described, so that others can check them. A scientist must therefore be capable of accurate ..... and description.

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7. A statement which can be checked by other people is an OBJECTIVE statement.

"The floor area of the Lecture Hall, in the Training Methodology is 200 sq. m.". This statement can be checked by you. It is an objective statement. Which of the following are objective statements?

- a) The number of teacher trainee for this course is 50.
  - b) Kodaikanal is very pleasant during summer.
  - c) The film GOD FATHER is very good.
  - d) Kodai is 450 kilometers away from Madras.
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8. You can check a measurement given through the use of any standard measuring instrument. Another way of saying this, is, to say, that a statement is objective if it can be checked by reference to a certain criteria about which there is general agreement. Is the following statement an objective statement?

I find it enjoyable to teach this class.

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9. Let us examine the statement. I find it enjoyable to teach this class. Many people would probably find it difficult to agree on what is meant by the word, enjoyable. Different people will have different measures of enjoyment. The statement is therefore subjective.


A statement which is about a person's own inner feelings and which cannot be proved or disproved by other people is subjective/objective?

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10. "To-day I have learned Ohm's Law". This statement can be checked by asking the student to state Ohm's Law or to write the law. Is this an objective or subjective statement?
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11. This objective approach, helps us to clarify our thinking. Most people would probably maintain that there seems to be more to learning than this. It is necessary to take into account the emotions which are stirred by learning. In learning this law, the student might have experienced feelings of excitement. The assessment of these emotions would usually be done objectively/subjectively?
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12. The possibilities of subjective excitement in learning cannot be overlooked. To think of all learning as nothing but changes in directly observable responses would perhaps be very superficial. The objective approach may help us to make
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12. .... Contd.

objective evaluation of learning in terms of the goals of our lessons.

We can improve our lesson preparation and presentation by writing down the goals of those lessons as required changes in .....

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13. We have described learning as change in behaviour. It is necessary that this change shall be relatively permanent. Very temporary changes in behaviour are ruled out and we are only interested in relatively .....  
..... changes in behaviour.

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14. Let us assume that you are to telephone your school/institute. You will look to telephone directory, if you are not sure of the telephone number. The use of telephone directory is an example of learning. Let us now consider the dialling of the particular sequence of digits obtained from the directory. If you have not telephoned your school before, you will have to look for the number in the directory. You were not in a position to dial the sequence required to call the school before, but you are able to do so now. Does this constitute a change in behaviour?

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15. No doubt you can call this as a change in behaviour. But this can be casual change and cannot be called learning. It may perhaps be not possible for you, to telephone the school again tomorrow, next week, next year or after a



## 15. ....Contd.

considerable time, unless you again refer to directory, or you have had a number of opportunities to refer the telephone number.

Therefore, we accept as evidence of learning those changes of behaviour, which are .....

16. Suppose one of your students falls and breaks his leg, instead of walking in the useful purposeful way, he is forced to walk on crutches for many weeks and is left with a permanent limp. A number of changes in behaviour are likely to follow from this accident. We may think of these under two headings.

First, we may think of the immediate change in the movement of his leg. Before the accident he could move his leg freely. After the accident, he cannot. Can we regard this change in behaviour, is learning?

17. The second set of changes in behaviour following the accident are of a different kind and may collectively be thought of as "learning to live with the limp". For example, on approaching the school staircase, the student may now look for the hand rail and rest his weight upon it as he ascends. Previously he did not look for a handrail but usually ran up like an athlete. We may certainly regard such permanent changes in behaviour as evidence of .....

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18. Let us now sum up and consider learning in a class-room situation. A student has to learn to use a slide rule. The teacher might first observe his behaviour to see whether he can use the instrument satisfactorily. If he cannot, the teacher would instruct him in its use and then observe his behaviour again. If now, the student can show evidence of repeatedly using slide rule in satisfactory way, the teacher can say that the student has learned. This is because the student now reveals a ..... change in behaviour.

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19. We have defined the term, learning. Let us now see how students may be stimulated to learn in the class-room. It is customary to think of normal healthy people as possessing five senses. You have been told about this earlier. What are these sense and sense organs?

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20. Things surrounding an individual may stimulate him through his senses, for example:

a) A person might be stimulated by perfumes through the sense of .....

b) A person might be stimulated by a low oil mark on the dipstick of his car through the sense of .....

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21. A stimulus is experienced through the senses and the individual may make a response. For convenience, this is sometimes expressed in the form (S-O-R)

O stands for organism i.e. the person. What do the letters S & R stand for?

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22. When a person is aware of a stimulus he may make a response. Now we must ask the question, "Under what conditions is a stimulus likely to have this effect"? Suppose an enthusiastic student is working with a tool in a workshop. Let us also assume that an instructor who is working with him points to a nut on a machine and says, 'That needs tightening'. The student then reaches for the nut. What is he likely to do next?

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23. In this situation, we might describe the words of the instructor. 'That needs tightening' as the stimulus and the action of the student in turning the nut as the

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24. Why did the student make that particular response? Was he accustomed to do similar work before? Perhaps he might have been working in his childhood with Meccano models and they worked better if nuts and bolts were tight. Thus a response is likely to be made if similar responses have in the past proved to be .....

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25. Perhaps the student had the experience of getting praise, encouragement and approval for tightening nuts and bolts on some of his toys or other machines or apparatus. The words 'Good' 'Excellent' and 'Well done' might have been used by his parents or teachers when he has done similar work before. Thus, a response have in the past led to expressions of .....

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26. When a response is followed by a result which a learner finds useful or beneficial (e.g. by proving useful, by gaining approval, by reducing discomfort), the response is said to have been reinforced. Thus, when you go through these pages and find your answer correct, or approved, your response is being .....

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27. In your school, you have to re-inforce the correct response of your students. How will you do this?

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28. One characteristic of a good teacher is the ability to recognise and to use approving words, facial expressions and gestures most suited to a particular student or group of students. In order to show approval for a correct response, a good teacher makes skillful use of .....

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29. Let us now go back to our S-O-R model. In this model, the letters S, O and R stand for .....  
and .....

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30. The S-O-R model is an over simplification. Many stimuli are likely to be experienced by the same person at any one moment of time. It might therefore be better to use:  
S1 S2 S3 S4 S5 S6 S7 for eliciting response.  
In this model, the seven letters of S stand for different  
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31. Let us consider you and your student in your school and in your own class-room, as the person in our model. Suggest two possible stimuli - one visual and one auditory. You will have a wide choice.  
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32. Your students are carefully listening to a speech by your Headmaster/Principal. Somebody coughs, which is in such contrast to his sweet melodious voice. Many students will turn to the direction from where the irritating cough seems to have come. They respond in this way because this new stimulus is in such marked .....  
to the music.

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33. At the beginning of a course or lesson, a student may respond more to what teacher is saying than to any other stimuli.

Possible reasons are:-

- a) He may have found in the past that many of his teachers have been careful to prepare an interesting beginning in their lessons but have not prepared the development of the lessons with as much imagination;
- b) It may be that he is just unable to concentrate because he is physically tired or slightly unwell and therefore unable to appreciate the significance of what the teacher is saying or doing.

People tend to be aware of stimuli which are .....  
..... to them.

34. The students attention in the class-room may change after about 10 or 15 minutes. He may now be aware of such stimuli as:

- a. The activities of other students in the class-room or of people in the veranda.
- b. Feelings of discomfort coming from those parts of person in contact with the chair.

Thus, it is likely that he will be less aware of stimuli coming from the .....

35. The students response to the activities of other people or to his feeling of discomfort may include amongst others whispering to his neighbours of fid getting to name two kinds of

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35. ....Contd.

responses which in the past have given satisfaction or comfort,  
that is to say to have been .....

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36. It is important for the teacher to try to present stimuli to  
the students in such a way that throughout the lesson they will  
continue to be aware of these particular stimuli rather than of  
many other stimuli present in any class-room or workshop.  
Are you aware of any irrelevant stimuli right now? Yes/No

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37. The teacher tries to present stimuli in such a way that students  
will be aware of the significance for them and thus not be aware  
of ..... stimuli.

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38. In many situations, the learner is more likely to be aware of  
relevant stimuli if the latter are presented in varied forms.  
A teacher might speak for a few minutes, show a diagram, then  
pass round the room and give some examples. Thus, he would  
have presented stimuli through:

- a) The learner's sense of hearing
  - b) The learner's sense of .....
  - c) The learner's sense of touch
- 
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39. Let us imagine a class at the beginning of a Radio Assembly lesson in the lab. The students are going to learn from the teacher how to assemble a radio and all necessary materials and equipment all there. These are strong ..... and are likely to catch the attention of the students.

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40. The students are able to read the labels on equipment, see and identify all materials. These stimuli are all .....  
.....

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41. The students may start to touch and handle the equipment to be used for the exercise. The teacher starts by describing the aim of the exercise and explains briefly how to do it. He stimulates the students by means of verbal question, explanations and directions. The stimuli are ..... stimuli.

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42. He may then pass round to the groups of students and give more specific instructions in printed or cyclostyled form. These, he uses as ..... stimuli.

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43. What should media do to help students to learn? Basically they must present him with stimulus and evoke desired responses. Media thus helps to present a student with stimulus to evoke desired.....

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44. Your learning strategies and selection of appropriate media is to ensure that the student knows the objectives and appreciates their relevance. In explaining objectives, the teacher related to the student his other interests, aims and experiences. In doing so, he not only orients the students but also motivates him. Thus appropriate media helps the teacher to \_\_\_\_\_ and \_\_\_\_\_ the student.

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45. Use of audio visual aids help the teacher to explain to the students, what he wants to explain better and also the students can understand better. Thus audio visual aids helps both the \_\_\_\_\_ and \_\_\_\_\_

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46. The aids help students to:
- a) arouse and maintain interest
  - b) recall earlier learning
  - c) provide new stimuli
  - d) activate his response
  - e) encourage appropriate practice

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46. .... Contd.

The use of aids helps the students and provide speedy and useful feedback to teachers.

The use of aids therefore helps \_\_\_\_\_ to teach and \_\_\_\_\_ to learn better, learn faster and remember longer.

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47. Use of objectives, interactive instruction, and appropriate audio visual aids, timely evaluation, all help us to achieve our important goal.

Our goal is to help students to .....

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48. In case you have any problems meet your Instructor

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49. If there is no response, you have no problems

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50. Now, answer unit test for units 4 & 5. Before you take the next module, answer post test for Module I.

GOOD LUCK.

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## Confirmation Booklet

Module I Introduction to Instructional Design  
 Unit 5 Learning and visual aids.

- 
1. Activities and interests
- 
2. b. Observing what the person can now do with .....  
 before.
- 
3. PROCEED TO NEXT FRAME. NO RESPONSE REQUIRED.
- 
4. Learning
- 
5. Scientific method
- 
6. Observation
- 
7. a. The number of teacher trainees for this course is 50.  
 b. Kodai is 450 kms. away from Madras.
- 
8. It is not
- 
9. Subjective
- 
10. Objective, but it is necessary that if student has  
 understood the law, he can apply the same.
- 
11. Subjectively, as it is difficult to device means of  
 assessing feelings or emotions.  
 Objectively the emotional responses in the class-room  
 situation.
- 
12. Behaviour
- 
13. Permanent
- 
14. Yes
- 
15. Relatively permanent
- 
16. No. The physical injury to his leg marks some  
 difference in movement which is inevitable.
-

- 
17. Learning
- 
18. Relatively permanent
- 
19. Seeing, hearing, smell, touch, taste.
- 
20. a) smell    b) sight
- 
21. S for stimulus and R for response
- 
22. He is likely to tighten the nut by turning it in the appropriate direction.
- 
23. response
- 
24. useful
- 
25. approval, praise, encouragement (or similar words)
- 
26. re-inforced
- 
27. By showing approval, when the correct response is made
- 
28. Re-inforcement or re-inforcers
- 
29. S: stimulus, O: Organism and R: response
- 
30. Stimuli
- 
31. Visual stimuli : Your face, words on the chalkboard, charts on wall etc.,.  
Auditory stimuli: Your voice, whispers from the student occupying next seat, music from transistor radio, etc.
- 
32. contrast
- 
33. significant
- 
34. teacher
- 
35. reinforced
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36. No: Good, you take the credit for this  
Yes: Sorry.  
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37. irrelevant  
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38. sight or seeing  
-----

39. stimuli  
-----

40. Visual  
-----

41. Verbal or auditory  
-----

42. Visual  
-----

43. response  
-----

44. orient, motivate  
-----

45. teacher, students.  
-----

46. students  
-----

47. help students learn better, learn faster and remember longer.  
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48. Response is your choice  
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49. Your response is your choice  
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50. GOOD LUCK.  
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AUDIO VISUAL EDUCATION

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 Module I Introduction to Instructional Design.  
 Unit IV/V Learning, Communication & Audio Visual Aids.  
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1. Which of the following statements gives a definition of perception ?
  - . . . . a. Perception is communication.
  - . . . . b. Perception is learning theory.
  - . . . . c. Perception is the process whereby an individual becomes aware of the world around us.
  
2. What are the seven ingredients of Berlo's model of communication ?
 

1. -----	5. -----
2. -----	6. -----
3. -----	7. -----
4. -----	
  
3. Pick up the correct statement(s) that tells you, when learning takes place (tick them).
  - . . . 1. Learning takes place only when he acquires new knowledge.
  - . . . 2. Learning takes place whenever an individual's behaviour changes.
  - . . . 3. Learning takes place when a person thinks or acts differently.
  - . . . 4. Learning is an individual experience.
  
4. Choose the correct examples of stimuli from given examples (tick correct).
 

. . . 1. Written words.	. . . 3. Pictures
. . . 2. spoken words	. . . 4. all audio visual aids
  
5. Learning theories fall into two categories. They are:-
 

1. -----	2. -----
----------	----------
  
6. List the three kinds of behavioural/outcome categorised by Bloom.
 

1. -----
2. -----
3. -----

7. Match the following two columns by writing letters denoting corresponding items.

Col.I

Col.II

- |                      |  |
|----------------------|--|
| A. Cognitive . . .   | 1. Attitude, values, appreciation.               |
| B. Psychomotor . . . | 2. Knowledge, information & intellectual skills. |
| C. Affective . . .   | 3. Skills, skeletal muscle use and coordination. |

8. List six levels of activity in the cognitive domain.

- |          |          |
|----------|----------|
| 1. _____ | 4. _____ |
| 2. _____ | 5. _____ |
| 3. _____ | 6. _____ |

9. List five levels of attitudes, interests and involvements of the affective domains.

- |          |          |
|----------|----------|
| 1. _____ | 4. _____ |
| 2. _____ | 5. _____ |
| 3. _____ |          |

10. Name four levels of activities in the psychomotor domain.

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|----------|----------|
| 1. _____ | 3. _____ |
| 2. _____ | 4. _____ |

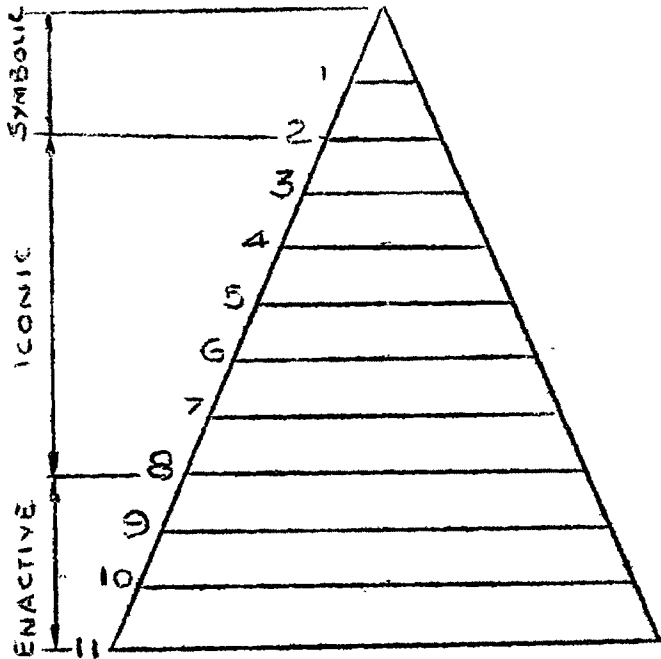
11. Match the following two columns.

Col.I.

Col. II

- |                   |                         |
|-------------------|-------------------------|
| A. Enactive . . . | 1. abstract experience  |
| B. Iconic . . .   | 2. Pictorial experience |
| C. Symbolic . . . | 3. direct experience.   |

12. Write in the order of sequence, the eleven divisions of the Dales Cone of Experience starting with direct purposeful experience.



1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_
11. \_\_\_\_\_

DALES CONE OF EXPERIENCE.

## AUDIO VISUAL EDUCATION

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 Module I Introduction to Instructional Design.  
 Unit IV/V Learning, Communication & Audio Visual Aids.  
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1. Which of the following statements gives a definition of perception ?
- . . . . a. Perception is communication.
  - . . . . b. Perception is learning theory.
  - . . . . c. Perception is the process whereby an individual becomes aware of the world around us.
2. What are the seven ingredients of Berlo's model of communication ?
1. \_\_\_\_\_ 5. \_\_\_\_\_  
 2. \_\_\_\_\_ 6. \_\_\_\_\_  
 3. \_\_\_\_\_ 7. \_\_\_\_\_  
 4. \_\_\_\_\_
3. Pick up the correct statement(s) that tells you, when learning takes place (tick them).
- . . . 1. Learning takes place only when he acquires new knowledge.
  - . . . 2. Learning takes place whenever an individual's behaviour changes.
  - . . . 3. Learning takes place when a person thinks or acts differently.
  - . . . 4. Learning is an individual experience.
4. Choose the correct examples of stimuli from given examples (tick correct).
- . . . 1. Written words.      . . . 3. Pictures
  - . . . 2. spoken words      . . . 4. all audio visual aids
5. Learning theories fall into two categories. They are:-
1. \_\_\_\_\_ 2. \_\_\_\_\_
6. List the three kinds of behavioural/outcome categorised by Bloom.
1. \_\_\_\_\_  
 2. \_\_\_\_\_  
 3. \_\_\_\_\_

7. Match the following two columns by writing letters denoting corresponding items.

<u>Col. I</u>	<u>Col. II</u>
A. Cognitive . . .	1. Attitude, values, appreciation.
B. Psychomotor . . .	2. Knowledge, information & intellectual skills.
C. Affective . . .	3. Skills, skeletal muscle use and coordination.

8. List six levels of activity in the cognitive domain.

- |          |          |
|----------|----------|
| 1. _____ | 4. _____ |
| 2. _____ | 5. _____ |
| 3. _____ | 6. _____ |

9. List five levels of attitudes, interests and involvements of the affective domains.

- |          |          |
|----------|----------|
| 1. _____ | 4. _____ |
| 2. _____ | 5. _____ |
| 3. _____ |          |

10. Name four levels of activities in the psychomotor domain.

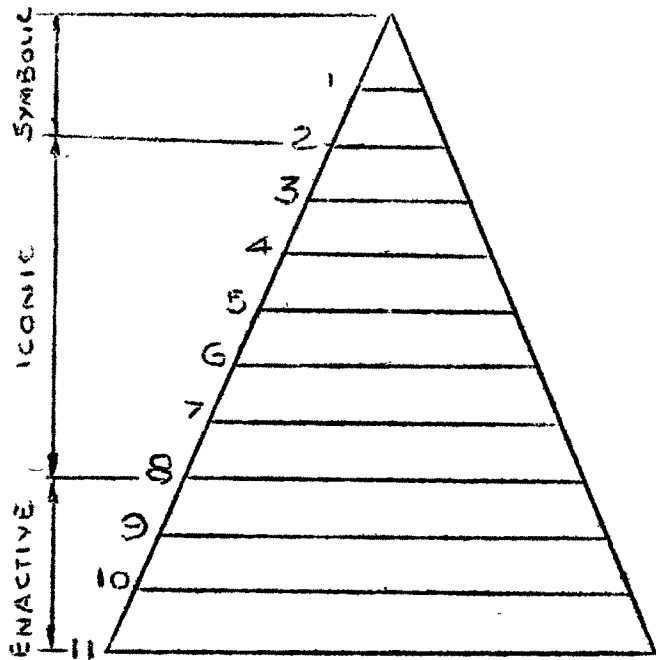
- |          |          |
|----------|----------|
| 1. _____ | 3. _____ |
| 2. _____ | 4. _____ |

11. Match the following two columns.

<u>Col. I.</u>	<u>Col. II</u>
A. Enactive . . .	1. abstract experience
B. Iconic . . .	2. Pictorial experience
C. Symbolic . . .	3. direct experience.



12. Write in the order of sequence, the eleven divisions of the Dales Cone of Experience starting with direct purposeful experience.



1. -----
2. -----
3. -----
4. -----
5. -----
6. -----
7. -----
8. -----
9. -----
10. -----
11. -----

DALES CONE OF EXPERIENCE.

## AUDIO VISUAL EDUCATION

## KEY

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 Module I Introduction to Instructional Design

Unit IV/V Learning, Communication & Audio Visual Aids.  
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1. Which one of the following statements gives a definition of perception?
  - a. Perception is communication.
  - b. Perception is learning theory.
  - \*\* c. Perception is the process whereby an individual becomes aware of the world around us.
  
2. What are the seven ingredients of Berlo's model of communication?
 

1. <u>Source</u>	5. <u>Destination</u>
2. <u>Encoder</u>	6. <u>Feedback</u>
3. <u>Channel</u>	7. <u>Noise</u>
4. <u>Decoder</u>	
  
3.        1. Learning takes place only when he acquires new knowledge.
  - \*\* 2. Learning takes place whenever an individual's behaviour changes.
  - \*\* 3. Learning takes place when a person thinks or acts differently.
  - \*\* 4. Learning is an individual experience.
  
4. Choose the correct examples of stimuli from given examples (tick correct).
 

<u>**</u> 1. Written words	<u>**</u> 3. pictures.
<u>**</u> 2. spoken words	<u>**</u> 4. all audio visual aids.
  
5. Learning theories fall into two categories. They are:
  1. Stimulus response or behaviourist
  2. Cognitive or Gestalt theory.
  
6. List the three kinds of behavioural/outcome categorised by Bloom.
  1. Cognitive.
  2. Affective.
  3. Psychomotor

7. Match the following two columns by writing letters denoting corresponding items.

Col. ICol. II.

- |                |          |  |
|----------------|----------|--|
| A. Cognitive   | <u>C</u> | 1. Attitude, values, appreciation                |
| B. Psychomotor | <u>A</u> | 2. Knowledge, information & intellectual skills. |
| C. Affective   | <u>B</u> | 3. Skills, skeletal muscle use and coordination. |

8. List six levels of activity in the cognitive domain.

- |                          |                       |
|--------------------------|-----------------------|
| 1. <u>Knowledge.</u>     | 4. <u>Analysis.</u>   |
| 2. <u>Comprehension.</u> | 5. <u>Synthesis.</u>  |
| 3. <u>Application.</u>   | 6. <u>Evaluation.</u> |

9. List five levels of attitudes, interests and involvements of the affective domains.

- |                       |                             |
|-----------------------|-----------------------------|
| 1. <u>Perceiving.</u> | 4. <u>Organisation.</u>     |
| 2. <u>Responding.</u> | 5. <u>Characterisation.</u> |
| 3. <u>Valuing.</u>    |                             |

10. Name four levels of activities in the psychomotor domain.

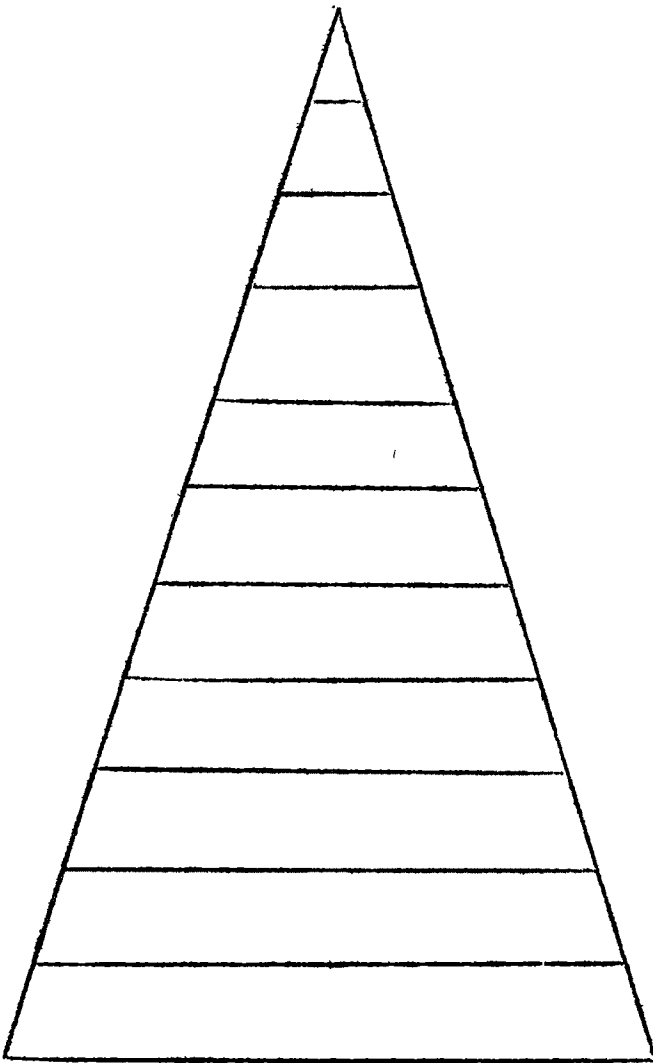
- |                                   |                              |
|-----------------------------------|------------------------------|
| 1. Gross bodily movements.        | 3. Non-verbal communication. |
| 2. Finely co-ordinated movements. | 4. Speech behaviours.        |

11. Match the following two columns.

Col.ICol.II

- |             |          |                          |
|-------------|----------|--------------------------|
| A. Enactive | <u>C</u> | 1. abstract experience.  |
| B. Iconic   | <u>B</u> | 2. pictorial experience. |
| C. Symbolic | <u>A</u> | 3. direct experiences.   |

12. Write in the order of sequence, the eleven divisions of the Dales Cone of Experience starting with direct purposeful experience.



1. verbal symbols
2. chalkboard, Charts, maps, diagrams etc.
3. Still pictures, radio and recording.
4. Motion pictures.
5. Television.
6. Exhibits.
7. Field trips
8. Demonstrations
9. dramatised experiences
10. Contrived experiences
11. Direct purposeful experiences.

DALES CONE OF EXPERIENCE.