

Welcome!



Unit 3
curricular components

Unit III: Curricular Components (17)

Specific Objectives

1. Explain aims, goals and objectives of curriculum.
2. Construct goals and objectives for various subjects.
3. Describe the criteria of selection and organization of content and learning experiences.
4. Justify the need of assessment / evaluation of student learning

Contents

2.1 Aims, goals and objectives

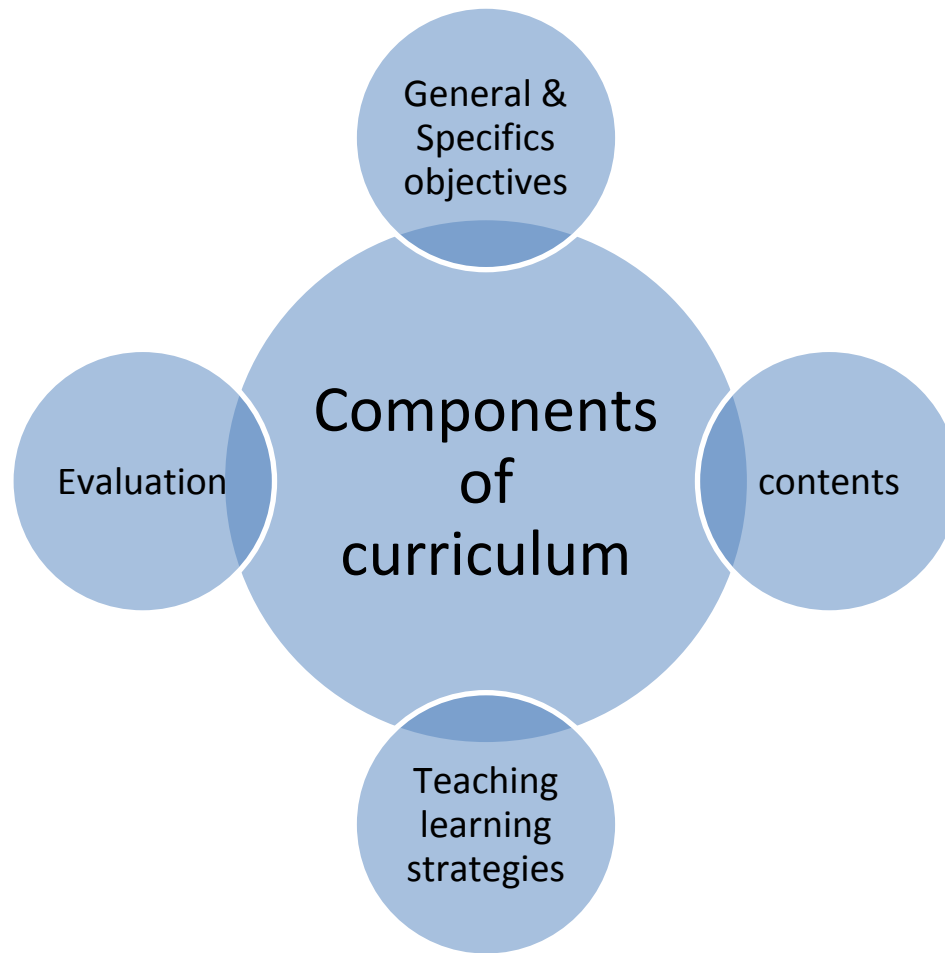
- Concepts and relationship
- Types of objectives: general and specific
- classification of objectives: cognitive, affective and psychomotor

2.2 Content: selection and organization

2.3 Teaching-learning experiences

- Criteria of selecting and organizing Learning Experiences
 - Teacher initiated and learner initiated experiences
- ### 2.4 Evaluation /assessment of student learning

The curricular components are follows:
According to R. W. Tyler:



According to our curriculum

- i. Aims, goals & objectives
- ii. Contents
- iii. Teaching learning experience
- iv. Evaluation

Aims, goals & objectives

- Aims means the overall desirable outcome of the educational process.
- it is comprehensive.
- Aims are broadly phrased.
- its used to non-technical words.
- it is long term nature , so , the students may or may not be attained in the life.
- its span long time.

goals

- Goals means achieving the target objectives.
- it is used non – technical words.
- it is medium term time used.
- Curriculum goals refers to school outcomes.
- Goals are devised from an aim. An aim is attained after the attainment of many goals.

objectives

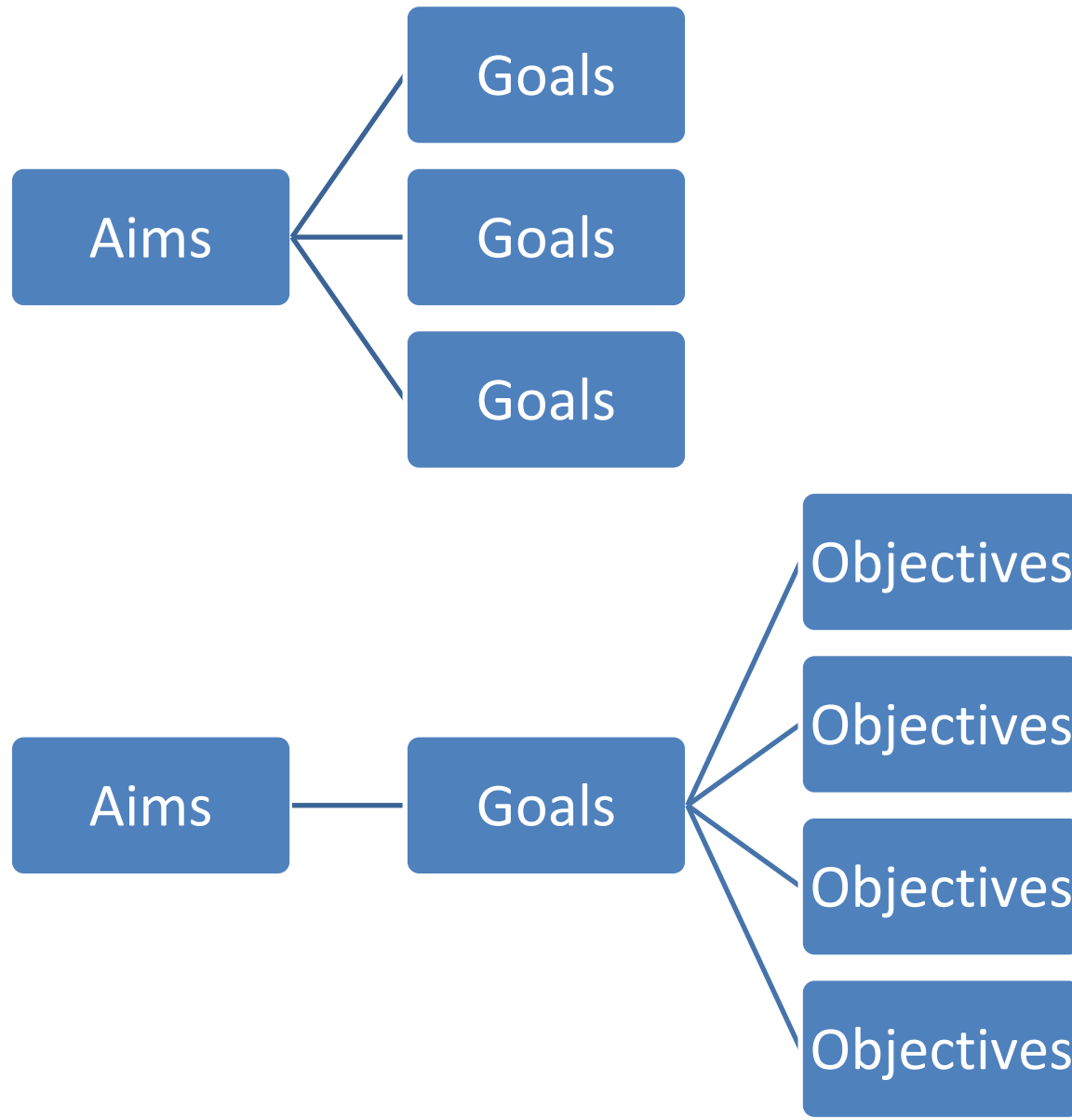
- ❑ Objectives are the 1st components of curriculum development.
- ❑ Aims & goals ,purpose and objectives refers to some terminal points towards intended outcomes . Aims and objectives of educational activity should lead an individual's life for successful live.
- ❑ statements of expected or desired or intended outcomes.
- ❑ it is desired or expected changes of students behaviour.

- Objectives are statements that describe the end-points or desired outcomes of the curriculum, a unit, a lesson plan, or learning activity. They specify and describe curriculum outcomes in more specific terms than goals or aims do.
- Learning objectives are statements that define the expected goal of a curriculum, course, lesson or activity in terms of demonstrable skills or knowledge that will be acquired by a student as a result of instruction. Also known as :Instructional objectives, learning outcomes, learning goals.

(Definition of objective)

- Objectives are usually specific statement of educational intention which delineate either general or specific outcomes.
- Benjamin Bloom and Robert Magyar defined educational objective in two ways:
 - 1 Explicit formulations of the ways in which students are expected to be changed by educative process.
 2. Intent communicated by statement describing proposed change in learner

The following diagram are the relationship of aims, goals & objectives.



Aims, goals and objectives

- Education is purposeful. It concern with outcomes that are expressed at several levels
- **Aims** : the most general level
- **Goals**: reflect the purpose with outcomes in mind.
- **Objectives**: reflect the most specific levels of educational outcomes

Types of objectives

i.) General objectives

ii.) Specific objectives

General objectives

- in general
- At the end of the program to achieve the goals.
- it developed certain skills, knowledge and capacity in the learner.

Types of educational objectives

- Taba(1962) states that there are two types of objectives:

1 General objective:

Those objectives that describe school- wide outcomes.

E.g. Improving students skills

2 Specific objective:

Those objectives that describe behavior to be attained in a particular unit, a subject/course or particular programmed

E.g. cognitive, affective and psychomotor domain

Action verbs of general obj.

- To appreciate, to understand,
- to remember
- to feel, to know, to believe,
- to enjoy, to familiarize, to realize
- To acquaint etc.

Specific objectives

- Particular expectation to be fulfilled at the end of the class.
- The main purpose : guiding the decision of curriculum .
- At the end of the class to achieve the goals.
- **The action verbs of specific obj.** are :
to match, to explain, to select, to sketch,
to use, to mention, to describe, to define
to discuss, to make , to write

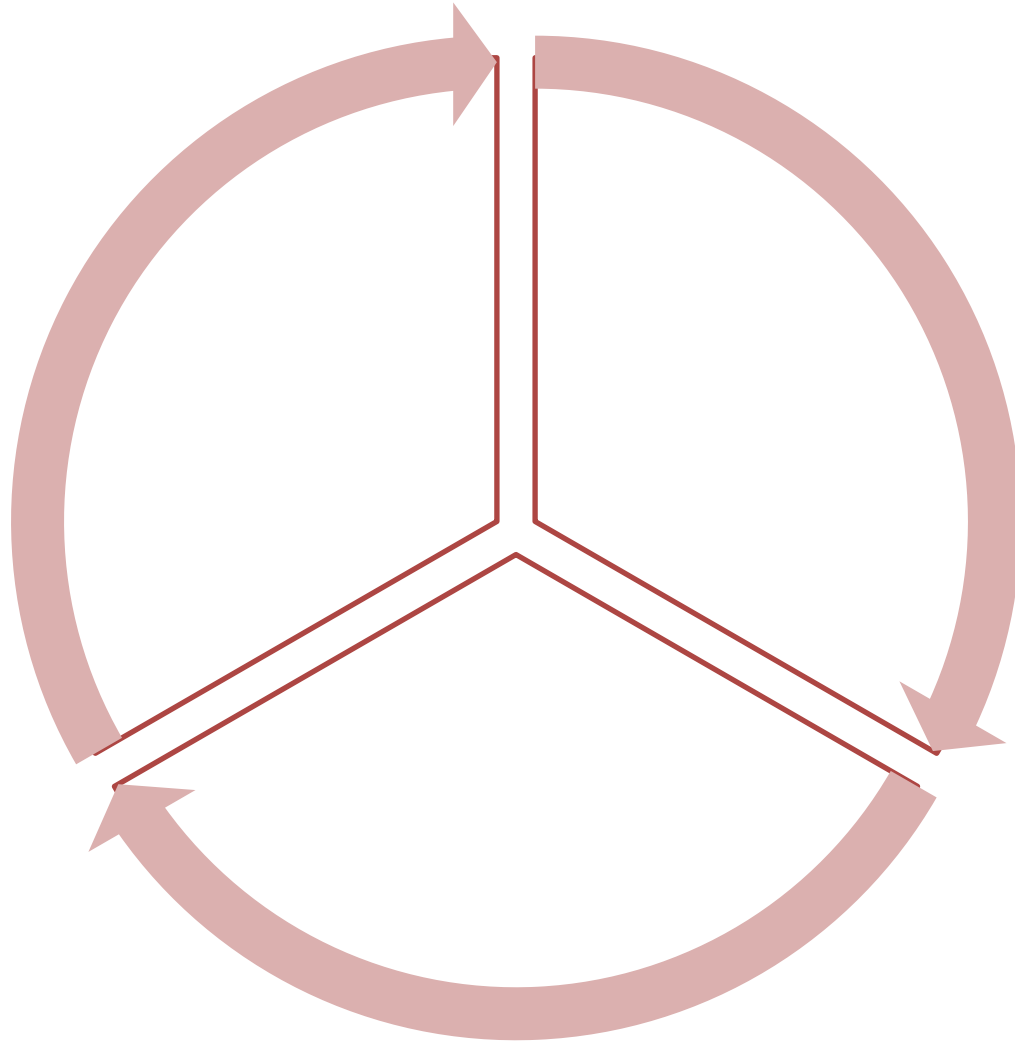
Some characteristics of specific obj.

- ❑ Specifics nature
- ❑ Clear
- ❑ Defined
- ❑ Objectively
- ❑ Observable
- ❑ Measureable
- ❑ Behavioral
- ❑ Simplified
- ❑ Obtainable/ Attainable
- ❑ Testable
- ❑ Easy to judge achievement.

General Instructional Objectives	Specific Learning Outcomes in terms of students behaviour
<ul style="list-style-type: none"> • Knowledge of Terminology • Knowledge of specific facts • Knowledge of methods and Procedures. • Knowledge of principles and generalisation. • Knowledge of conventions. • Knowledge of trends and sequences. • Knowledge of classification. • Knowledge of basic concepts. 	<ul style="list-style-type: none"> • The student can define identify and give references for specific verbal and nonverbal symbols. • Here the student has to recall dates, events, persons sources of information. • It involves the methods of inquiry, techniques and procedures employed in a specific subject field. • The pupil can find out particular abstractions which summarise observation of phenomena. • Pupil can find out ways of dealing with and presenting ideas. • Pupil can outline and state the process, directions and movements of phenomena with respect to time. • Pupils can classify different categories, names, sets and dimensions. • Pupil can define and state different concepts.

Different Between general & specific objectives

Classification of objectives

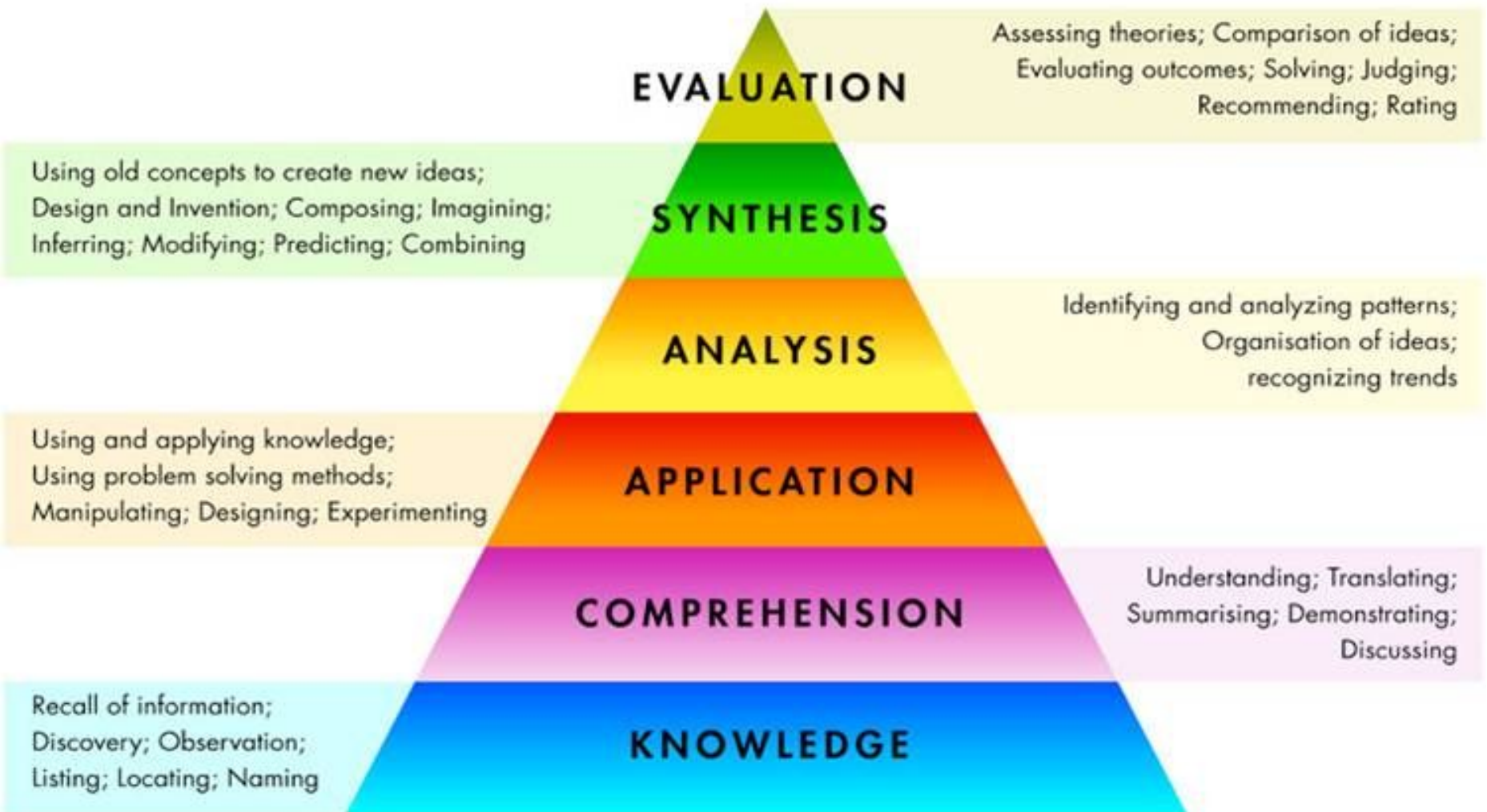


Cognitive domain

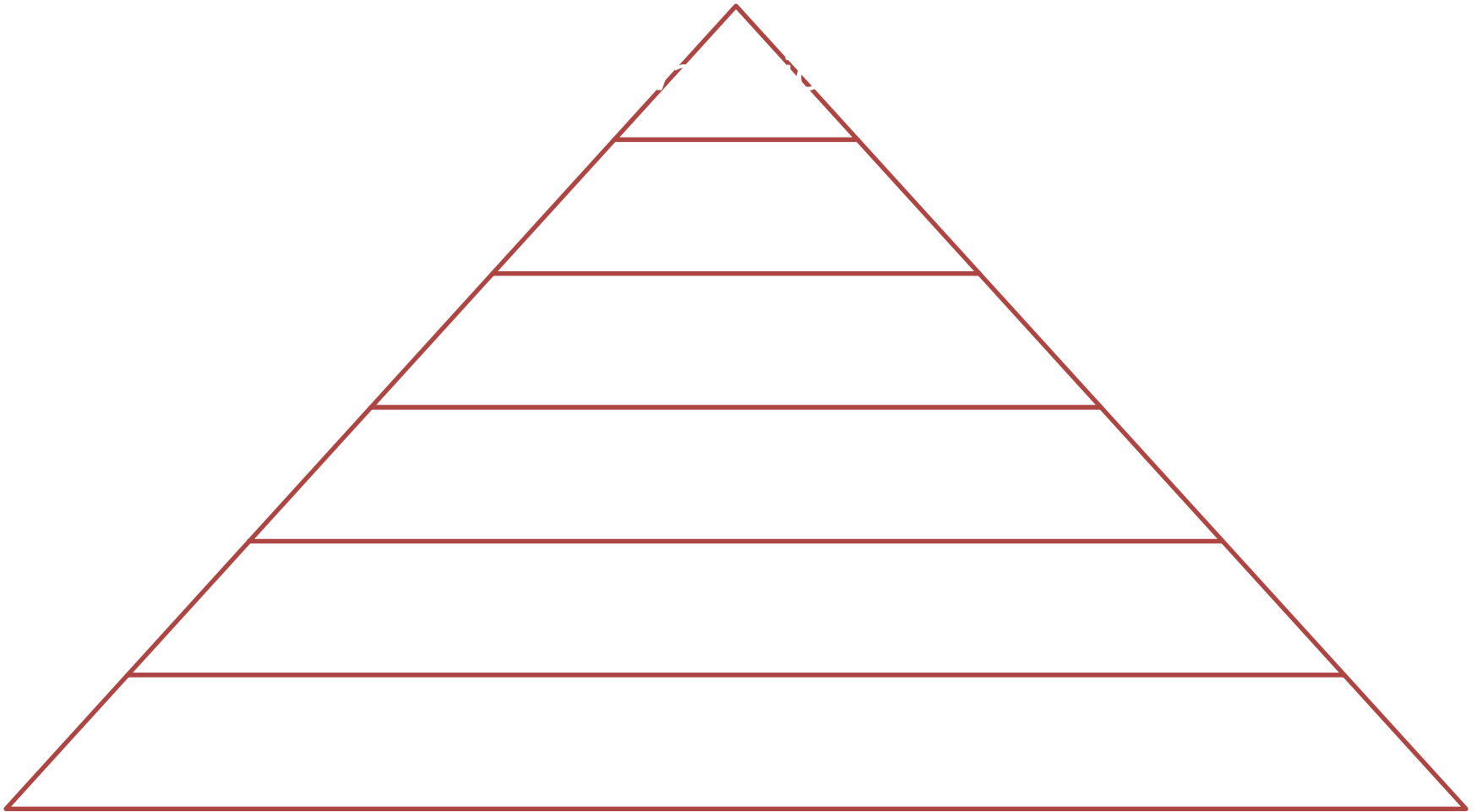
- The cognitive domain is known as development of thinking process. Intellectual abilities, & skills, gaining information about facts, events and objects on the basis of mental activities.
- Its includes the objectives of knowledge which aims to develop the mental & intellectual capacity of learners.

Level of cognitive domain

B L O O M S T A X O N O M Y



Level of cognitive domain





Evaluation

Judgement about the value of materials and methods for given purposes

Appraise, estimate, select, argue, evaluate, support, judge, value, attack, predict, score, compare, rate, defend

Synthesis

Bring together parts of knowledge to form a whole and build relationships for new situations

Describe, name, recite, recognise, list, match, relate, repeat, reproduce, state

Analysis

Breakdown knowledge into parts and show relationships among the parts

Analyse, appraise, calculate, diagram, discriminate, distinguish, question, test, differentiate, categorise, contrast, examine, experiment, compare, inventory, criticise

Application

The application of knowledge to a new situation

Solve, demonstrate, apply, construct, predict, prepare, produce, sketch, solve, use, write

Comprehension

The translation, interpretation or extrapolation of knowledge

Arrange, explain, interpret, classify, express, locate, describe, identify, report, discuss, indicate, restate, sort, translate, extrapolate

Knowledge

The recall of information

Describe, name, recite, recognise, list, match, relate, repeat, reproduce, state

knowledge

- Lowest level
- It consist the components like: Recall or memorization & recognition.
- Action verbs:-
 - To recall - To write - To identify
 - To measure - To describe - To distinguish
- Example:- At the end of this class the students will be able **to describe** the vertebrate animal.

Comprehension jf]w

- It means the ability of the learners to comprehend the taught contents.
- It consists the components like: Translation, interpretation, selection, organization & speculation .
- **The action verbs:-**
 - To identify - To Translate - To construct
 - To classify - To explain - To justify
 - For ex. At the end of the class the students will be able **to Explain** the features of computer.

Application

- Practical of a learned thing in the practical day to day life is called application.
- **The action verbs:**
 - To use - To solve - To judge
 - To compute - To show - To transfer
- Example :-
- At the end of the class the students will be able **to solve** mathematical problem.

Analysis

- To study the content by classifying the organization of content into different parts is considered as analysis.
- It is higher level intellectual level of study.
- The action verbs:
 - To debate to select to compare
 - To separate to relate to identify
- Ex. At end the class the students will be able to separate.....

Synthesis

- To accumulate or synthesis various learned knowledge, skill and experience into regarded as synthesis.
- **The action verbs:**
 - To combine -to summarize -to plan
 - To formulate - to argue - to produce
 - Ex. At the end of the class the students will be **able to plan** the curriculum in ICT B. ed.

Evaluation

- To evaluate , whether the teaching of content is on the basis of objectives or not is called evaluation.
- it is higher level of knowledge.
- **The action verbs:**
 - To judge - To select To compare
 - To choose - to defined to identify

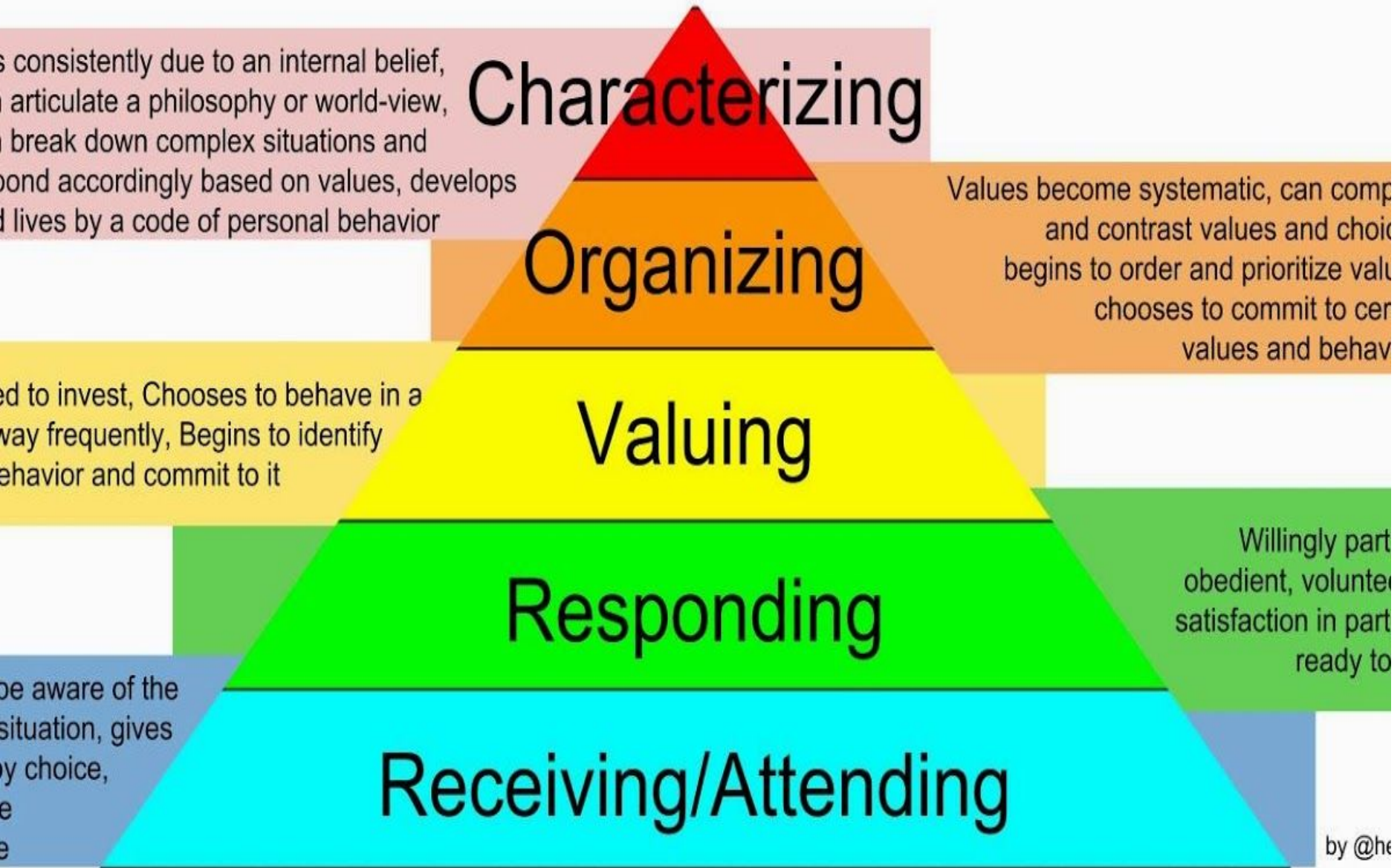
Ex. At the end of the class the students will be able **to judge** the lesson in his/ her book.

Competence		Skills Demonstrated	Example
I	Knowledge: remembering information	Define, identify, label, state, list, match, select	<ol style="list-style-type: none"> 1. State the standard temperature at sea level. 2. Define a logbook entry.
II	Comprehension: explaining the meaning of information	Describe, generalize, paraphrase, summarize, estimate, discuss	<ol style="list-style-type: none"> 1. In one sentence explain why aviation uses a standard temperature. 2. Describe why a log entry is required by the FAA.
III	Application: using abstractions in concrete situation	Determine, chart, implement, prepare, solve, use, develop, explain, apply, relate, instruct, show, teaches	<ol style="list-style-type: none"> 1. Using a standard lapse rate, determine what the temperature would be at a pressure altitude of 4000'. 2. Determine when a logbook entry is required.
IV	Analysis: breaking down a whole into component parts	Points out, differentiate distinguish, examine discriminate, compare, outline, prioritize, recognize, subdivide	<ol style="list-style-type: none"> 1. Compare what the different temperatures would be at certain pressure altitudes based on the standard lapse rate. 2. Determine information required for logbook entry.
V	Synthesis: putting parts together to form a new and integrated whole	Create, design, plan, organize, generate, write, adapt, compare, formulate, devise, model, revise, incorporate	<ol style="list-style-type: none"> 1. Generate a chart depicting temperatures for altitudes up to 12,000'. 2. Write a logbook entry for an oil change.
VI	Evaluation: making judgments about the merits of ideas, materials, or phenomena	Appraise, critique, judge, weigh, evaluate, select, compare and contrast, defend, interpret, support	<ol style="list-style-type: none"> 1. Evaluate the importance of this information for a pilot. 2. Evaluate the necessity of keeping logbook entries.

2. Affective domain

- The effect of learning to the learners' emotional aspects is called learning of affective domain.
- The Affective behavioral variable are defined as the interest, attitude, values, appreciation & adjustments of the individuals.
- The Affective domain classify into following ways:

Level of Affective Domain



Level of Affection domain

Receiving

Responding

Valuing

Organizatio
n

Characterizatio
n

Internalizing Values

Value system is internalized and controls behavior.

Organization

Prioritizes values and resolves conflicts between them.

Valuing

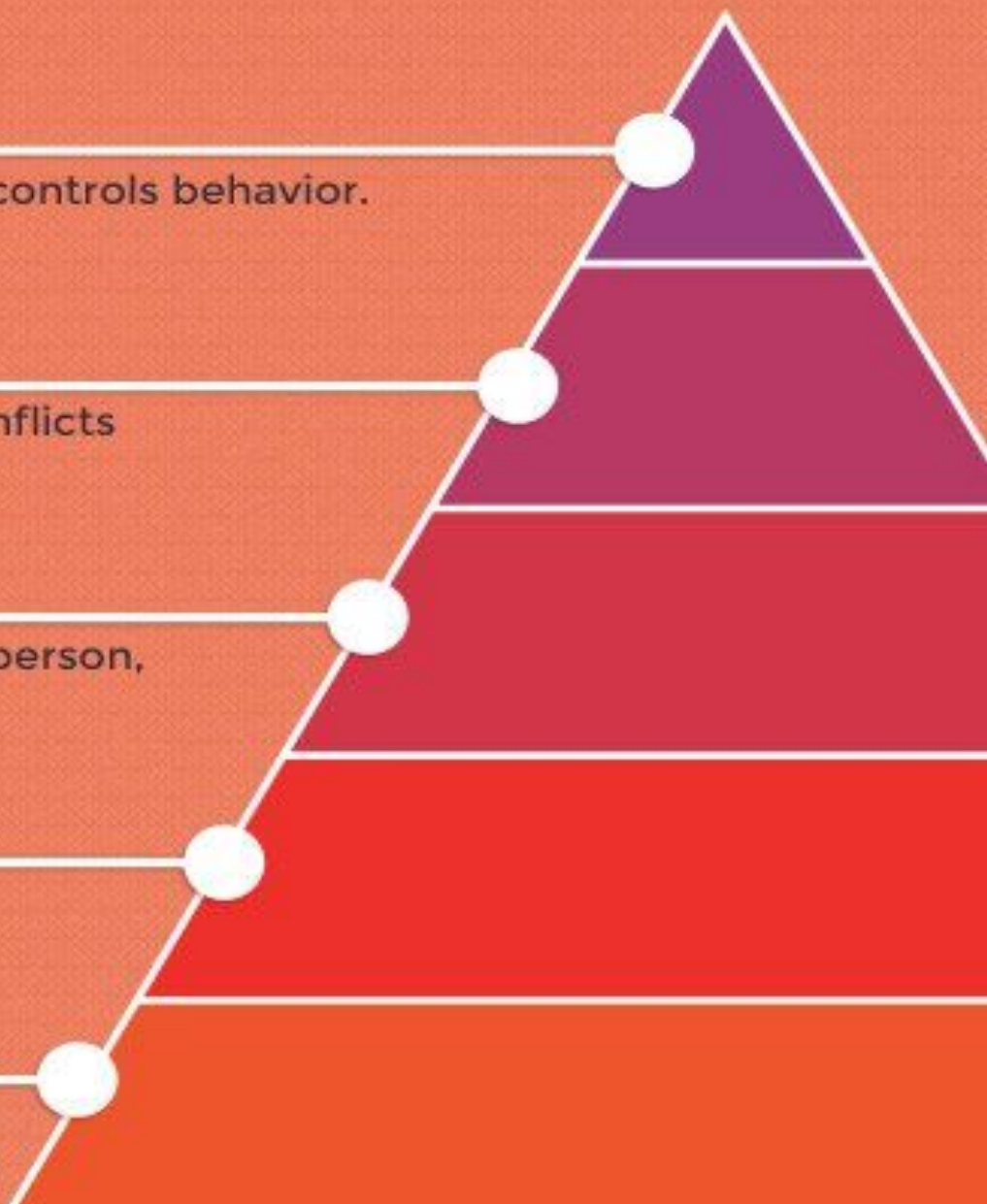
Places value on a behavior, idea, person, situation, etc.

Responding

Learner actively responds and participates.

Receiving

Learner is willing to pay attention and listen with respect.



Affective Domain Levels

Level	Description	Verbs	Objective
Receiving	Being aware of, or attending to something in the environment.	Listen Notice Tolerate	Listen attentively to badminton introduction.
Responding	Showing some new behavior as a result of experience.	Comply Enjoy Follow	Voluntarily help set up badminton nets.
Valuing	Showing some definite involvement or commitment.	Carry out Express	Attend optional badminton match.
Organization	Integrating a new value into one's general set of values relative to other priorities.	Choose Consider Prefer	Purchase own badminton racket.
Characterization	Acting consistently with the new value; person is known by the value.	Act on Depict Exemplify	Join intramurals to play badminton twice per week.

1. receiving

- learners' interest in receiving or attending any stimulus, activity and events is regarded here as receiving or attending.
- It consists of the components like: interest, awareness, willingness (of us) to receive and controlled attention (of the whole class).

The action verbs:

- To Receive -To agree To accept

Ex. At the end of the class the students will be able to agree the lesson of class 5 in math.

Responding

- The active participation of learners' in teaching learning activities is called responding.
- In teaching learning activities only the positive respond is always expected.
- The action verbs:
 - To present - To respond - To recognize
 - To play -To discuss - To enjoy
- Ex. At the end of the class the students will be able **to discuss** the lesson in his/her friends.

Valuing

- To respond towards some stimulus , events and activities is called valuing.
- Action verbs :
 - To value - To change To explain
 - To judge - To prepare To help
- Ex. At the end of the class the students will be able **to prepare** the lesson plan correctly.

Organization

- To accumulate different values into one is called organization.
- The action verbs:
 - To relate To explain To organize
 - To define To compare To order
- Ex. At the end of the class the students will be able to define the Text Book and curriculum.

Characterization(rfl/qs/Of)

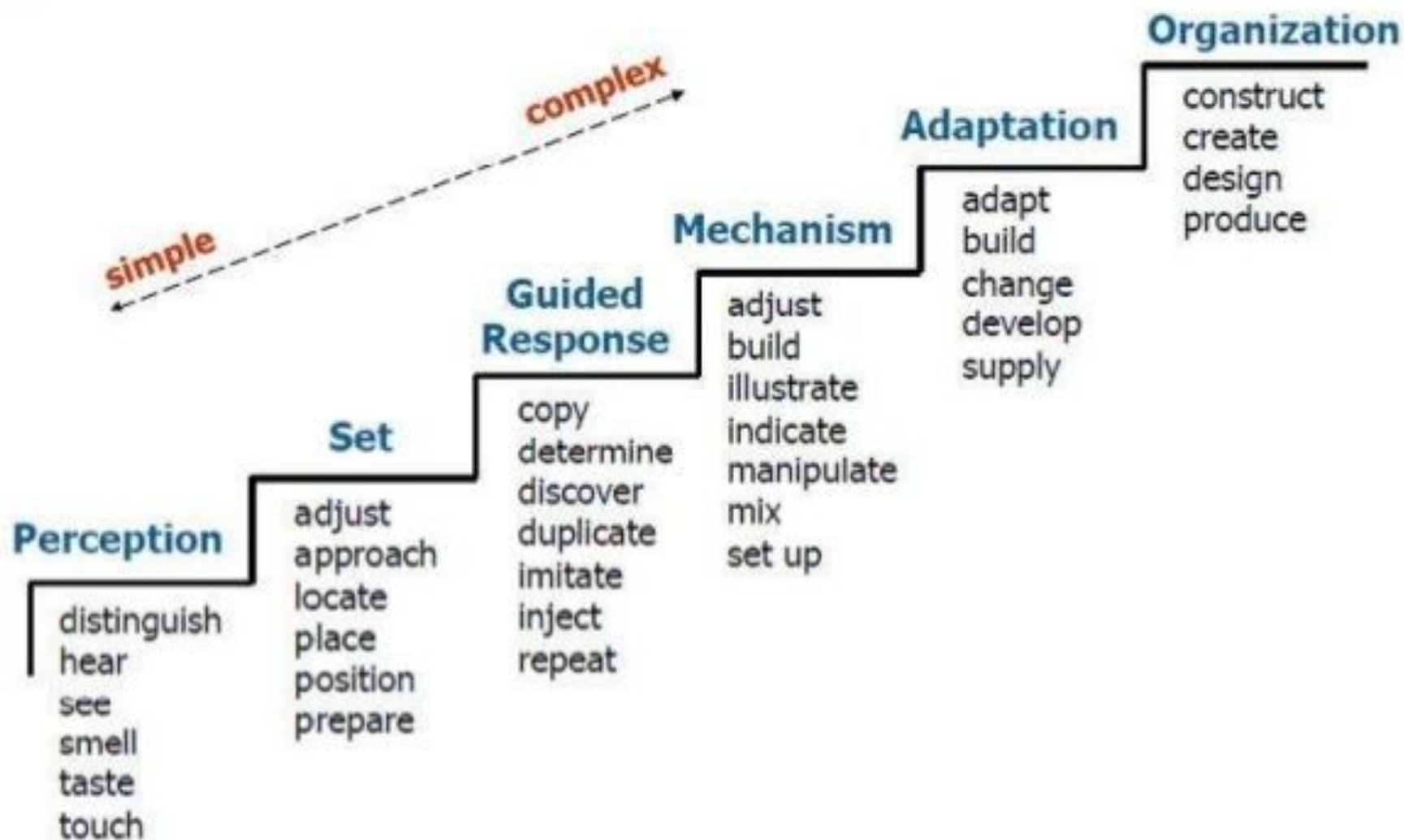
- To decide about the various knowledge, skills, behavior and activities of learning is called characterization.
- This level includes individuals view, perception & thought.
- The action verbs:
 - To change to complete to review
 - To accept to face to purpose
- Ex.to change present tens into past .

Psychomotor domain

- The **psychomotor domain** (Simpson, 1972) includes physical movement, coordination, and use of the motor-skill areas. Development of these skills requires practice and is measured in terms of speed, precision, distance, procedures, or techniques in execution.
- Psychomotor domain includes knowledge, skills and capacity which are learned by physiological procedures.
- These activities or behavior are carried out through the involvements of mental senses and physical adjustments. The psychomotor domain classified into ways:

Psychomotor Domain

"What Should I Be Able to Do?"



Level of Psychomotor domain



Psychomotor Domain (Bloom, 1956; Simpson, 1972)

Suggested by Bloom, 1956 with categories created by Simpson, 1972

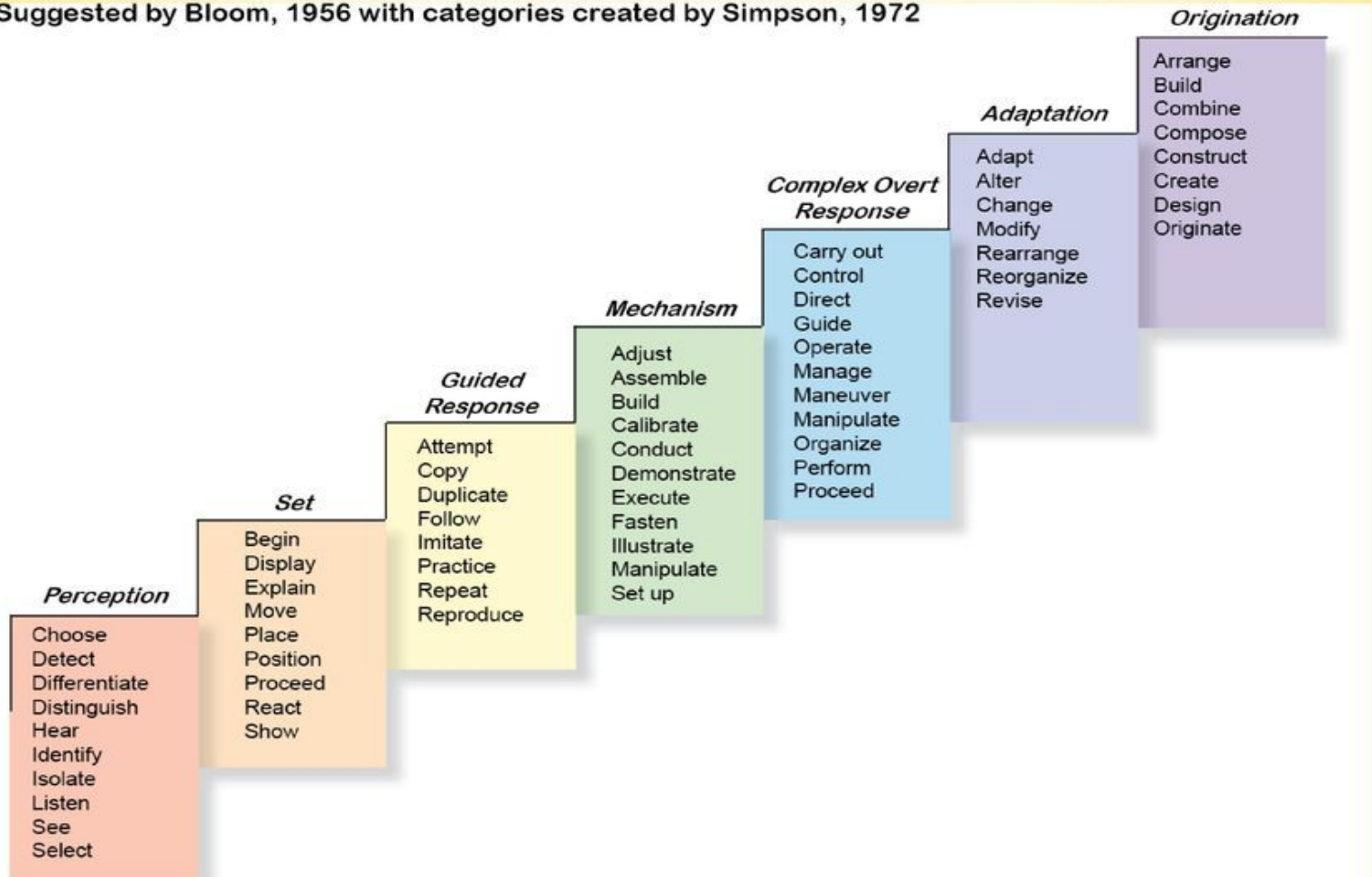


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Level of psychomotor domain



Summarize form of psychomotor domain

Action	Definition	Verbs
Perception	<ul style="list-style-type: none">• Senses cues that guide motor activity	Detect, hear, listen, observe, perceive, recognize, see, sense, smell, taste, view, watch
Set	<ul style="list-style-type: none">• Is mentally, emotionally and physically ready to act	Achieve, assume, establish, place, position, sit, stand, station
Guided Response	<ul style="list-style-type: none">• Imitates and practices skills, often in discrete steps	Copy, duplicate, imitate, manipulate, operate, practice, repeat, try
Mechanism	<ul style="list-style-type: none">• Performs acts with increasing efficiency, confidence and proficiency	Complete, conduct, demonstrate, execute, improve efficiency, increase, make, pace, produce, show
Complete Overt Response	<ul style="list-style-type: none">• Performs automatically	Act, advance, control, direct, excel, guide, maintain, manage, master, organize, perfect, perform, proceed
Adaptation	<ul style="list-style-type: none">• Adapts skill sets to meet a problem situation	Adapt, reorganize, alter, revise, change
Organization	<ul style="list-style-type: none">• Creates new patterns for specific situations	Design, originate, combine, compose, construct



Psychomotor Domain

CATEGORY	EXAMPLE AND KEY WORDS (VERBS)
Perception: The ability to use sensory cues to guide motor activity.	describes, differentiates, distinguishes, identifies, isolates, selects.
Set: Readiness to act. It includes mental, physical, and emotional sets.	displays, explains, shows, states.
Guided Response: The early stages in learning a complex skill that includes imitation and trial and error.	reproduce, responds.
Mechanism: This is the intermediate stage in learning a complex skill.	assembles, calibrates, constructs, displays, measures, mixes, organizes, sketches.
Complex Overt Response: The skillful performance of motor acts that involve complex movement patterns.	assembles, builds, constructs, displays, measures, mixes, organizes, sketches.
Adaptation: Skills are well developed and the individual can modify movement patterns to fit special requirements.	adapts, changes, rearranges, revises.
Origination: Creating new movement patterns to fit a particular situation or specific problem.	arranges, builds, combines, composes, constructs, creates, designs.

perception

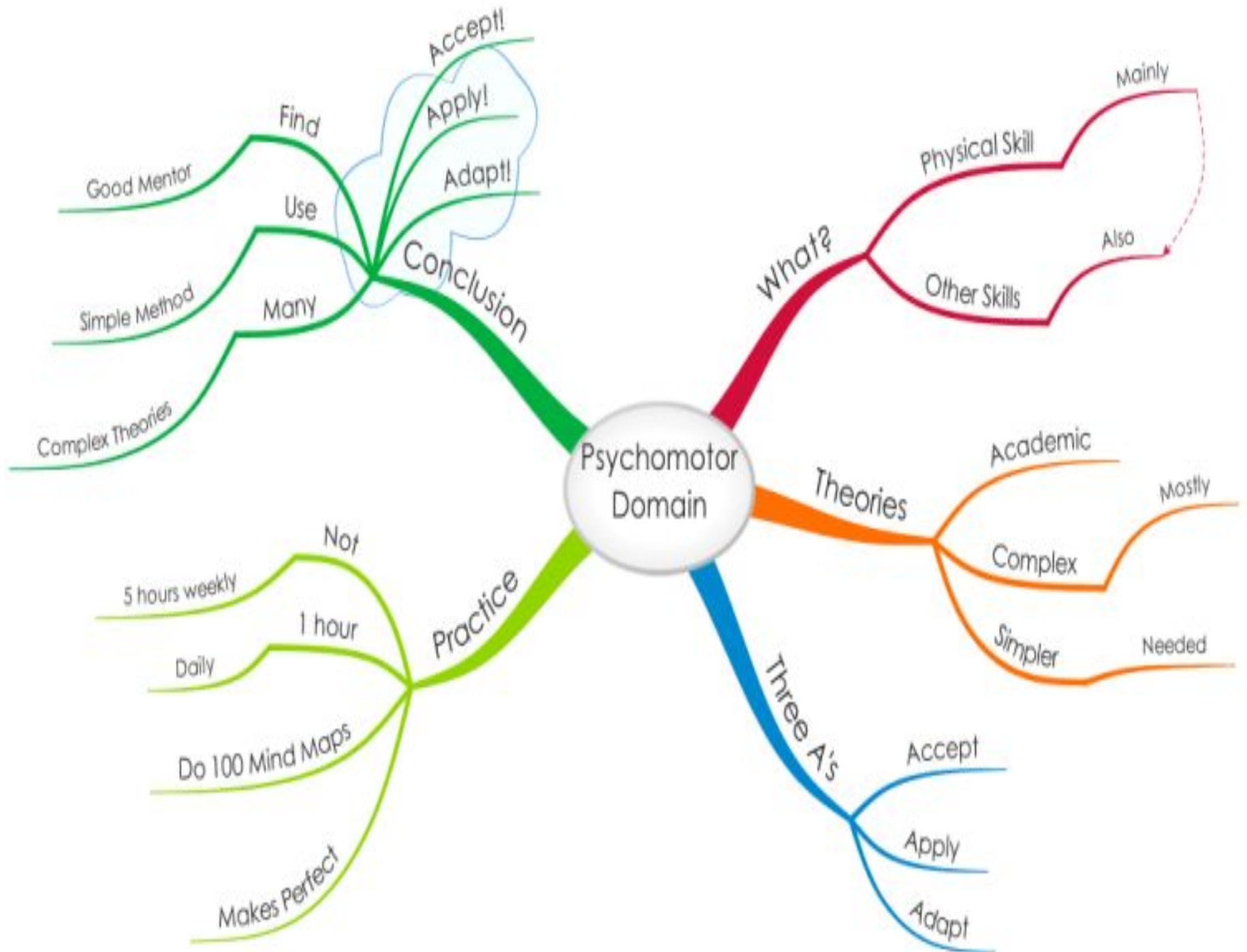
- Awareness, the ability to use sensory cues to guide physical activity. The ability to use sensory cues to guide motor activity. This ranges from sensory stimulation, through cue selection, to translation.
- perception is the first step of psychomotor skill learning.

To perceive is necessary to learn anything.

The action verbs :-

- To distinguish To confirm To describe
- To explain To differentiate To relate

By the end of the music theatre program, students will be able **to relate** types of music to particular dance steps.



Set or Preparation

- Readiness, a learner's readiness to act. Readiness to act. It includes mental, physical, and emotional sets. These three sets are dispositions that predetermine a person response to different situations (sometimes called mindsets).
- To prepare for certain stimulus is called set.
- It includes mental, physical and emotional preparation.

The action verbs:

- To start To act To response
- To show To demonstrate

By the end of the physical education program, students will be able **to demonstrate** the proper stance for batting a ball.

Guided response

- Attempt. The early stages in learning a complex skill that includes imitation and trial and error. Adequacy of performance is achieved by practicing.
- To adopt or accept the direction or to perform the activities on the basis of rule and regulation for learning any motor skill is considered as guided response.

The action verbs:-

- To demonstrate To orient To construct
- To add to perform TO measure To combine

By the end of the physical education program, students will be able **to perform** a golf swing as demonstrated by the instructor.

Mechanism

- basic proficiency, the ability to perform a complex motor skill. This is the intermediate stage in learning a complex skill. Learned responses have become habitual and the movements can be performed with some confidence and proficiency.
- Mechanism in learning means to perform the action as a machine.

The action verbs:-

- To apply To change To prepare To assemble
- To say To make To organize

By the end of the biology program, students will be able **to assemble** laboratory equipment appropriate for experiments.

Complex overt Response

- To perform and apply the learned things as necessary is called complex overt response.
- It is regarded as an ordinary response of complex tasks.

The action verbs: -

- | | | |
|---------------|-------------|-------------|
| - To response | To practice | To try |
| - To move | To change | To activate |

Ex. At the end of the class the students will be able **to change** the learning into the exam paper.

By the end of the industrial education program, students will be able **to demonstrate** proper use of woodworking tools to high school students.

Adaptation

- The action verbs: Application of learned things into the behavioral activities in terms of situation or condition is called adaptation .(l;s]sf] s'/fnfO Jojfxf/df ptf{g')
- Adaptable proficiency, a learner's ability to modify motor skills to fit a new situation.
- Skills are well developed and the individual can modify movement patterns to fit special requirements.

The action verbs:-

To Reconstruct To adapt To change To adjust

By the end of the industrial education program, students will be able **to adapt** their lessons on woodworking skills for disabled students.

Origination

- creative proficiency, a learner's ability to create new movement patterns. Creating new movement patterns to fit a particular situation or specific problem. Learning outcomes emphasize creativity based upon highly developed skills.
- In this process of teaching activities, learners may perform their own creativity is called origination.

The action verbs:-

To create	To produce	To construct
To manage	To compose	To discover

Ex. At the end of the class the students will be able **to discover** the project paper of the textbook .

Comparatively bloom's domain

Cognitive

- learners' ability to process information in a meaningful way

- **Categories:**

- Knowledge
- Comprehension
- Application
- Analysis
- Synthesis
- Evaluation

Affective

- learners' attitudes and feelings that are a result of the learning process

- **Categories:**

- Receiving
- Responding
- Valuing
- Organizing
- Characterizing

Psychomotor

- learners' ability to use motor skills to learn

- **Categories:**

- Perception
- Set
- Guided response
- Mechanism
- Complex overt response
- Adaptation
- Origination

Comparatively bloom's domain

Cognitive



Psychomotor



Affective



Cognitive	Affective	Psychomotor
Knowledge	Attitude	Skills
Recall Data	Receive (Awareness)	Imitation (Copy)
Understand	Respond (React)	Manipulation (Follow Instructions)
Apply (Use)	Value (Understand and Act)	Develop Precision
Analyse (Structure/Elements)	Organise Personal Value System	Articulation (Combine, Integrate Related Skills)
Sythesise (Create/Build)	Interalise Value System (Adopt Behaviour)	Naturalisation (Automate, Become Expert)
Evaluate (Assess, Judge in Relational Terms)		

3.2 Content

- After the selection of objectives appropriate determination of content provide the necessary learning experience.
- Content as the subject matter of teaching – learning process and includes knowledge, skills, and values associated with subject.
- Contents contains full responsibility of the development of intellectual capacity ,knowledge, skills, ability etc. of an individual .
- Content is selected to improve behaviour in desired way which also evaluates the learner gains those behavior or not.

Criterion for **selection** of content

- Criterion of validity
- Criterion of significance
- Criterion of interest
- Criterion of learn ability
- Criterion of relevancy
- Criterion of utility
- Criterion of authenticity

Criterion of **organization** of content

1. Continuity :-
2. Relevancy :-
3. Scope\ Area and adequacy:-
4. Sequence :-
 - i .) simple to complex order
 - ii .) part to whole.
 - iii .) concrete to abstract
5. Integration :-
 - i.) vertical integration
 - ii.) horizontal integration

i.) vertical integration:- Same subject , Difference
Classes

For Ex. Nepali : 1, 2, 3, 4, 5,6

ii.) horizontal integration :- Difference Subject
and
same class

For ex. Grade 6 Subject :- Nep, Eng, Math ,Soc.

3.3 Teaching – learning experiences

Learning experience refers to any interaction, course, program, or other experience in which learning takes place, whether it occurs in **traditional academic settings (schools, classrooms) or non-traditional settings (outside-of-school locations, out door environments), or whether it includes traditional educational ...**

- The methods, procedures, process, techniques and designed plans through which the **selected subject matters are accomplished or reached to the learners** are called teaching learning process.
- **Close relationship** between subject matter & teaching methods.

Criterion for **selecting** learning experience

1. Validity
2. Comprehensiveness
3. Variety
4. Suitable
5. Relevancy of life
6. Pupil/ students participation planning
7. Based on Pattern:-
 - balance,
 - accumulation,
 - continuity

CRITERIA FOR THE SELECTION OF LEARNING EXPERIENCES

- Learning experience selected should be consistent with the educational philosophy
- Learning experience should be varied and flexible
- Provide sufficient opportunity to practice or self-activity,
- It should provide opportunity for the development of independent thinking and study , decision-making, good judgment , intellectual resourcefulness, self-discipline etc.
- Learning experience should be adapted to the needs and concern of the student
- learning experience are arranged in a manner that provides continuity, sequential development, logistic manner, correlation and integration of theory, practice and clinical learning experience which will facilitate effective learning.

Criterion for **organizing** learning experience

1. Continuity

2. Sequence

3. Scope

4. Cumulative learning

5. Integration

i.) horizontal integration:-

ii.) vertically integration.

What are the Factors affecting in teaching learning experiences .

- ❑ Nature of the content
- ❑ Instructional goals or objectives
- ❑ Psychology of the learners
- ❑ Time
- ❑ Motivation
- ❑ Available teaching materials
- ❑ Appropriate learning situation
- ❑ Feedback
- ❑ Ability of a teacher
- ❑ Condition of learners

3.4 Evaluation /Assessment of student learning

- Generally to appraise whatever the learners achieve intended objectives or not is called evaluation.
- Curriculum evaluation is the process delineating, obtaining, and providing information useful in making curriculum decisions and judgment.

Types of evaluation

- Formative evaluation:-
 - it is continuous process.
 - eg. unit test, class test, home work
- Summative evaluation
 - At the end of the Academic session.
 - eg. Final test , last test.

Some Question for exercise

1.) What is objective in curriculum formation.?

- a. Desired outcomes **b. Intended outcomes**
- c. learning outcomes d. Target outcomes

2.) What do you mean by specific objective ?

- a. Takes long time b. Easy to make
- c. Difficult to judge **d. Behavioral learning outcomes**

3. Which is the highest level of Cognitive domain ?

- a. Knowledge b. Comprehension
- c. Knowledge utilization **d. Evaluation.**

4. Which is the lowest level of Cognitive domain ?

Knowledge

a. Marzano b. kendall c. marzano & kendall **d. bloom**