

learner is not only concerned with attending or doing some thing but also reacting it some way. Learning outcomes like reading the assigned material, reading beyond assigned material, reading for pleasure shake comes under this category. An example of General and Specific learning outcomes under this category is given below :

General Instructional Objectives	Specific Learning outcomes in terms of student's behaviour
<ul style="list-style-type: none"> • Acquiescence in Responding. • Willingness to respond. 	<ul style="list-style-type: none"> • Reads the assigned material, completes the hometask. Practises at home. Recites the material taught. • Participates in classroom discussion. Reads beyond the assignment. Volunteers for special task.
<ul style="list-style-type: none"> • Satisfaction in responding. 	<ul style="list-style-type: none"> • Reads for pleasure. Assists others in work. Enjoys helping others. Shows interest in doing novel work.

3. Valuing :

Valuing refers to "the worth or value a student attaches to a particular object phenomenon or behaviour." It includes just mere acceptance of a value to the commitment to pursue it. It is the process of internalization of a set of specified values. At this level the student shows a consistent and stable behaviour. It ranks third in the hierarchy of objectives in the affective domain. 'General Instructional Objectives' and 'Specific Learning Outcomes' coming under valuing are as following :

General Instructional Objectives	Specific Learning Outcomes in terms of student's behaviour
<ul style="list-style-type: none"> • Acceptance of a value. 	<ul style="list-style-type: none"> • Demonstrates belief in a particular process. Explains the cause of belief, initiates a process.
<ul style="list-style-type: none"> • Preference for a value. 	<ul style="list-style-type: none"> • Appreciates a piece of work like writing, art or music. Appreciates the contribution of an individual, justifies the worth of a rule or principle.
<ul style="list-style-type: none"> • Commitment 	<ul style="list-style-type: none"> • Shows commitment to social improvement. Takes responsibility for the smooth functioning of a group. Shows a positive attitude to solve problems.

4. Organisation :

Organisation refers to the "conceptualization of values and the employment of these concepts for determining the relationship among values." Thus it is the process of bringing together different values, resolving conflicts and building an internally consistent value system. Learning at this level includes the activities-comparing, relating and synthesizing values. General and Specific learning outcomes under organization are given below :

General Instructional Objectives	Specific Learning Outcomes in terms of Student's behaviour
<ul style="list-style-type: none"> • Conceptualization of a value. • Organization of a value system. 	<ul style="list-style-type: none"> • Recognises the duties and responsibilities of a citizen. Accepts responsibility for own behaviour, Knows his own strength and weakness. Compares his own stand point with a standard value. • Prepares life plans. Identifies vocational courses which make him self-sufficient. Develops a philosophy of life which suits to his interests and beliefs.

5. Characterization by a value :

Characterization of a value implies that organisation of inter- relationship among various values into a total philosophy of world view. At this level "an individual has a value system that has controlled his behaviour for a sufficiently long time for him to have developed a characteristic life style." As the behaviour is guided by a permanent value system so it is 'pervasive', 'consistent' and 'predictable'. It includes those behaviours which are typical or unique characteristics of an individual.

General Instructional Objectives	Specific Learning Outcomes in terms of students behaviour
<ul style="list-style-type: none"> • Safety consciousness. • Self reliance. • Cooperation 	<ul style="list-style-type: none"> • Displays safety consciousness. Acts for the safety. • Shows self reliance in solving problems, proposes different methods, displays the ability to solve the problems independently. • Influences others by his own activities. Listens others patiently. Proposes the

<ul style="list-style-type: none"> • Industry and self discipline 	<p>group activities. Serves for the betterment of the society.</p> <ul style="list-style-type: none"> • Try to modify his behaviour. Forms good habits. Try to qualify himself for a purpose. Revises his faulty behaviours.
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PSYCHOMOTOR DOMAIN :

Psychomotor domain includes objectives related to perceptual and motor skill areas. It requires a higher order of thinking ability and doing. It deals with areas involving varied types of muscular skills and coordinations. These activities are related to practical skills and habits. Laboratory experiments, work-experience programmes and practical works in the teaching learning process come under this category. Simpson (1972) classified the psychomotor domain as perception, set, guided response, mechanism, complex overt response, adaptation and origination. These objectives have further sub-divided as General Instructional Objectives and Specific Learning Outcomes.

1. Perception :

Perception refers to the "use of sense organs to obtain cues that guide motor activity." Therefore perception is to respond to a hint or stimulus in a proper manner. An example of General Instructional Objectives and Specific Learning Outcomes under perception is given below.

General Instructional Objectives	Specific Learning Outcomes in terms of students behaviour
<ul style="list-style-type: none"> • Awareness of a stimulus. • Selection of cue. • Translation. 	<ul style="list-style-type: none"> • Detects the defects of an instrument from speed, sound or movement. Responds correctly to a question from hints. Chooses right object from colour or brand. Isolates defective elements from its appearance. • Identifies the song appropriate for a situation. Describes the scene for a plot of a play. • Identifies the song from the start of a music. Describes the theme of an art. Distinguishes the meaning of different colours in a symbolic presentation.

2. Set :

Set means "readiness to take a particular type of action". A learning situation

requires the physical, mental and emotional readiness of the learner. When the student has perceived the stimulus properly then only a set will take place. The General Instructional Objectives and Specific Learning Outcomes under this objective are as following :

General Instructional Objectives	Specific Learning Outcomes term of student's behaviour
<ul style="list-style-type: none"> Mental readiness to act. 	<ul style="list-style-type: none"> Knows the sequence of fixing different instruments in an experiment. Begins the primary works of an experiment properly.
<ul style="list-style-type: none"> Physical readiness to act. 	<ul style="list-style-type: none"> Handles the instruments in proper manner for an experiment. Stands in a right posture in a class to teach.
<ul style="list-style-type: none"> Willingness to act. 	<ul style="list-style-type: none"> Shows positive attitude towards experiment. Starts preparation for teaching.

3. Guided Response :

Guided response refers to the "early stages in learning a complex skill." When the student learns a complex skill like drawing a diagram he learns through imitation and trial and error. By this process he learns the process completely. Different General and Specific Learning Objectives coming under this category are as following :

General Instructional Objectives	Specific Learning Outcomes in terms of student's behaviour
<ul style="list-style-type: none"> Learning through imitation. 	<ul style="list-style-type: none"> Dissects the frog as demonstrated. Assembles the objects as shown. Constructs the diagram as demonstrated
<ul style="list-style-type: none"> Learning through trial and error. 	<ul style="list-style-type: none"> Mixes different amount of colours to get a particular colour. Uses different methods to identify a salt or chemical.

4. Mechanism :

Mechanism is the process by which the learned responses become more perfect and habitual. After a thorough practice the individual can perform the task with confidence and proficiency. The main concern at this level are

performance skills of various types. An example of some General Instructional Objectives and Specific Learning Outcomes under mechanism is given below :

General Instructional Objectives	Specific Learning Outcomes in terms of student's behaviour
<ul style="list-style-type: none"> • Writing skills. 	<ul style="list-style-type: none"> • Organizes different points, writes smoothly and legibly. Uses appropriate words.
<ul style="list-style-type: none"> • Laboratory performance skills. 	<ul style="list-style-type: none"> • Assembles the instruments, fixes the instruments in right position. Operates the machine smoothly.
<ul style="list-style-type: none"> • Teaching performance skills of a pupil teacher. 	<ul style="list-style-type: none"> • Arranges the class room properly. Gives appropriate examples. Uses aids at right place.

5. Complex Overt Response :

Complex overt response refers to the "skillful performance of motor acts that involve complex movement patterns." At this level it is observed that how proficiently an individual performs a work. Proficient performance refers to quick, smooth and accurate performance with limited energy. It requires a high co-ordination of motor activities.

Some of the General and Specific Learning Out-comes at this level are as following :

General Instructional Objectives	Specific Learning outcomes in terms of students behaviour
<ul style="list-style-type: none"> • Resolution of uncertainty. 	<ul style="list-style-type: none"> • Operates a machine skillfully, shows the right type of style in bating. Demonstrates right type of gesture and posture while narrating a story.
<ul style="list-style-type: none"> • Automatic performance. 	<ul style="list-style-type: none"> • Sets the parts of a T.V. Set properly and quickly. Plays a harmonium skillfully. Drive an automobile skillfully.

6. Adaptation :

It is the skill to adjust to the novel situations. Adaptation is defined as the "skills that are so well developed that the individual can modify movement patterns to fit special requirements or to meet a problem situation." General Objectives and Specific Learning Outcomes under adaptation are as follows :

General Instructional Objectives	Specific Learning outcomes in terms of students behaviour
<ul style="list-style-type: none"> Adjustment and modification of behaviour. 	<ul style="list-style-type: none"> Adjusts the batting according to the change of pace in bowling. Adapts the appropriate speed of an automobile according to the road condition. Re-arranges the set of instrument in an experiment when a particular part goes wrong.

7. Organisation

Organisation refers to creative performance skills. It is the "new movement patterns to fit a particular situation or specific problem."

General Instructional Objectives	Specific Learning outcomes in terms of students behaviour
<ul style="list-style-type: none"> Creative Performance skills. 	<ul style="list-style-type: none"> Composes poems and dramas of new style. Creates new assumptions and theories. Creates new design dresses. Composes new music and lyrics.

Table 2.1. Summary of Taxonomy of Instrumental Objectives.

Domain	Major Categories
Cognitive Domain	<ul style="list-style-type: none"> —Knowledge —Comprehension —Application —Analysis —Synthesis —Evaluation.
Affective Domain	<ul style="list-style-type: none"> —Receiving —Responding —Valuing —Organization —Characterization by a value.
Psychomotor Domain	<ul style="list-style-type: none"> —Perception —Set —Guided response —Mechanism —Complex overt response —Adaptation —Origination

C. Preparing a List of Objectives from Different Sources

A vast list of instructional objectives can be obtained from different sources. Some of the most useful sources which can give list of instructional objectives are given below :

Books on different methods of teaching can provide a list of instructional objectives.

- Year books and Guide books published by NCERT.
- Reports of different Education Commission.
- Documents on Educational Policy published by Government.
- Manuals of published Achievement Tests.
- Instructional Objective Banks published by NCERT, SCERTs, UGC Guidance Bureau etc.

Principles of Selecting Instructional Objectives

It is difficult on the part of a teacher to select the appropriate instructional objectives. He is always in trouble to decide which objectives are to be included and which are to be avoided. The following principles help a teacher in determining the list of instructional objectives.

⇒ **The Instructional Objectives should include all important learning outcomes**

The instructional objectives should include all possible learning outcomes from knowledge, understanding, skills, attitude etc.

⇒ **The Instructional Objectives should be according to the goals of the society.**

Each society has certain general goals. So the objectives selected should reflect the general goals of the society.

⇒ **The Instructional Objectives should be according to the sound principles of learning**

Instructional objectives are the product of learning experiences. Therefore while selecting the instructional objectives the ability, interest, capacity to remember etc. should be taken into consideration.

⇒ **The Instructional Objectives should be accessible in terms of student's ability time and facilities available.**

While selecting an instructional objective a teacher should take into account the mental abilities of the students for whom the objectives are to be selected. Another important factor is the facilities available in the school for instruction and time required to achieve these objectives.

METHODS OF STATING INSTRUCTIONAL OBJECTIVES

An instructional process becomes successful when a well organised list of instructional objectives is prepared. It satisfies two goals :

- (a) to obtain a complete list of instructional objectives.
- (b) to state the learning objectives clearly so that it will indicate the expected learning outcomes.

We have already discussed in the previous section of this chapter how to obtain a complete list of the instructional objectives. In this section we shall discuss the procedure for stating the instructional objectives.

Instructional objectives in the teaching learning process can be divided into two types.

(a) *General Instructional Objectives :*

It is a goal or intended learning outcome stated in general enough terms. It includes a set of specific objectives in it.

(b) *Specific Learning Objectives :*

A goal or aim serving as a guide for a teaching unit, directed toward the eventual achievement of a general objective. It is stated in terms of specific and observable pupil performance. It describes the specific behaviour, a learner will exhibit after learning a particular unit.

Let us discuss separately different criteria for stating, general instructional objectives and specific learning objectives.

Criteria for Stating the General Instructional Objectives :

To obtain a comprehensive list of the instructional objectives the following steps should be followed :

1. Each General Objective should be stated as an intended learning outcome :

It means the objectives must be stated in terms students expected terminal behaviour. For example

- Defines the term.
- Understands the relationships.
- Applies the formula to solve problems.
- Interprets charts and graphs.

2. Statement of each general objective should begin with a verb :

The objective should be stated in terms of students behaviour i.e. the expected terminal behaviour of the student. For example.

- Knows the events.*

–Understands the Principles.

–Applies the principles and rules.

3. Only one learning outcome should be included in each general objective :

Each general objective should include one type of student performance. For example

It should not be stated like—

–understands and applies the formula to solve mathematical problems.

It should be stated like

–Understands the formula.

–Applies the formula to solve mathematical problems.

4. Each general objective should be stated at the proper level of generality :

A general instructional objective must be stated in general terms. This provides the teacher more freedom in selecting the method and material for instruction. For example the objectives must be stated as

– Knows specific facts.

– Understands the principles and relationships.

– Interprets maps and charts.

– Applies theories to solve practical problems.

5. Statement of general objectives should be free of course content :

The statements of general objectives should not be taken from the course content. So that it can be used for several units.

Example :

Better

–Applies the principles and rules to solve mathematical problems.

Poor

–Applies the principles and rules of simple interest to solve mathematical problems.

6. Overlapping of the objectives should be avoided :

In order to avoid the overlapping of the instructional objectives proper planning is necessary. Preparation of a 'Table of Specification' helps the teacher to avoid overlapping of the instructional objectives. You will find a detailed discussion about the 'Table of Specification' in the Chapter—3.

Criteria for Stating Specific Learning Objectives

Statement of a specific learning objective makes the general instructional objective more clear and convenient. A general instructional objective supports

by specific learning outcomes provide adequate direction for teaching and testing. Therefore a specific learning outcomes should be stated clearly. The following steps helps to state specific learning objectives.

1. Each general objective must be supported by a representative sample of specific objectives.

A list of specific learning outcomes coming under each general objective must be prepared. It must be clearly described what type of terminal performance the students are expected to perform.

2. Each specific learning objective must begin with an action verb.

The specific learning objectives should be stated in terms of students observable behaviour. The expected learning outcome must be an action verb.

Example :

—Defines important terms.

—Identifies the difference between different terms.

3. Specific learning objectives must be related to the general objectives under which it is stated.

While preparing the list of specific learning objectives one must be sure that each specific learning objective is relevant to the general objective under which it is stated.

Example :

General Objective :

—Interprets graphs and charts.

Specific Learning Objective :

—Understands the slope of the graphs.

4. Adequate number of specific learning objectives should be enlisted.

To describe properly and adequately the performance of pupils who have attained the objective enough specific learning outcomes should be included.

5. Statement of specific learning objectives should be free from course content.

The objectives stated should not be taken from the course content directly. So that it can be used for several units.

MODEL QUESTIONS

1. Why is the knowledge of instructional objectives useful for the teacher ?

2. Discuss how you will take care of all important aims of instruction?
3. Discuss the importance of instructional objectives in the educational process?
4. Discuss with examples the implications of taxonomy of educational objectives?
5. Explain any two instructional objectives under cognitive domain. Give examples?
6. What are different methods of stating instructional objectives?
7. Explain with examples the instructional objectives under affective domain?
8. Explain any three instructional objectives under psychomotor domain. Give examples?

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