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Education Department
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The words "mission statement," "vision," "goals," "aims," and "objectives," "outcomes," are often used interchangeably without recognizing their differences, (even though related) or their meaning.

VISIONS

-the broadest of all the terms. From an organization's vision would arise the "vision statements" which when expressed in a synopsis format, forms the "Mission Statement" of that organization;

- this gives the purpose and reason for its existence;

GOALS

- Goals are the ends that society sets for the education system it operates.

- their origin would stem from the vision statements of the system;
- are general expressions of values that provide a sense of direction.
- very broad expressions that can be acceptable by large number of individuals. For example, school, workers, parents, 'taxpayers', 'population'.

For example:

- (i) every adult should be prepared to work in a technological world.
- (ii) every student should be functionally literate
- (iii) every citizen should be able to vote as an informed individual in a democratic society.

- Goals such as these are important in expressing values and communicating society's concerned (many can agree)

- However goals are so broad and general that their implementation is difficult.

- To be useful goals often require greater specification in the form of aims and objectives.

AIMS,

- like goals, provide a sense of direction but they are more specific.
- Goals relate a general aim to some specific aspect of the curriculum.
- Aims are more like the targets used in shooting practice.

(they indicate the precise direction that educations must follow in all or part of the educational system.)

- Aims expresses goals in narrower and more specific terms.

For example:

- (i) students should understand the use of the microcomputer
- (ii) should be able to read and write well enough to become gainfully employed;

(iii) should know how to choose a candidate and vote in an election.

- Aims bring goals down to earth by connecting them to some tangible aspect of the curriculum.

made by curriculum planners

Ministry of Education personnel.

OBJECTIVES

Carry this process one step further by describing the specific behaviour the learner is to attain, the conditions under which the behaviour must be demonstrated and the proficiency level at which the behaviour is to be performed.

Educational objectives are best thought of as intended outcomes of the process of education.

For example:

(i) student will, using the microcomputer, produce a two-page manuscript in 10 minutes or less.

(ii) students by class V will be able to write a 400-word essay with no more than two grammatical and punctuation errors in comprehension.

(iii) students will participate in a mock election by choosing a candidate from the list and giving reasons for their choice.

- Objectives must be formulated to fit students. (Change may be required after planning.)

SUMMARY

Goals:

Broad statements of very general outcomes that

(a) do not specify level of performances

(b) do not specify specific areas of the curriculum

(c) tend to change infrequently and in response to societal pressures;

eg. become a good citizen, be creative, learn problem-solving, appreciate art, develop high-level thinking skills;

Aims are more narrowly defined statements of outcomes that:

(a) apply too specifically to curricula;

(b) are developed by programme coordinators, principals, administrators,

eg. read to level 5 by grade III.

appreciate art from a specific period;

Objectives - specific statements of learner behaviour or outcomes that state the conditions under which the behaviour is to be exhibited;

- these behaviours are expected to be attained at the end of a specific time of instruction;

eg. by Wednesday, be able to write Bloom's Taxonomy.

The Purpose of Objectives

- objectives help you to plan and organize instruction in ways that save time;
- avoid redundancy;
- ensuring that critical learning needs are addressed;
- objectives set a clear course and level of performance both for you and your students;
- good objectives are fundamental communication that simply tell everyone what to expect;
- objectives bring specificity and concreteness (stability) to classroom activities;

Objectives have two Practical Purposes

- (a) to tie general goals and aims to specific classroom strategies that will achieve those goals and aims; and,
- (b) express teaching strategies in a format that allows you to measure their effects upon your learners;
- the format that allows measurement of learning is the "Behavioural Objectives"
- when the word "behavioural" precedes the word objective, learning is being defined as a change in the learner's observable behaviour;
- this behaviour must not only be observable but also measurable;
- mentalistic activities which cannot be observed cannot be the focus of a behavioural objective; [does not say that learning has not occurred, but cannot be constituted as evidence that learning has occurred] - cannot be directly observed;
- such observable behaviour must be recorded over a period of time during which specific content, teaching strategies, methods/models, and instructional media, have been used.
- This must not be confused with "*instructional objectives*"
- before you can teach a successful lesson, you must determine what you want your students to know as a result of your teaching;
- effective lesson planning begins with identifying instructional objectives;
- (sometimes referred to as "instructional goals," "learning goals," and "learning objectives")
- since the most skillful teacher cannot look directly into their student's minds, the most practical way to identify instructional objectives is to decide what your students should be able to show you they can do, through specific behaviour and performance, when they have participated in a lesson. - these are the behavioural objectives.
- Instructional objectives must be distinguished from "learning activities."
- learning activities are those actions or experiences in which you will have your students engage in order to learn content or practice a skill or develop values and attitudes.

Eg "student will view a film on pollution and record five key causes of pollution in their notebooks" (activity)

"After viewing and discussing a film about pollution, all students will be able to list in their notebooks five key causes of pollution" (objective)

- Where did the notion of objectives come from? - Tyler (1934)
- first conceived of the need for goal-directed statements for teachers;
 - he observed that teachers were far more concerned with the content of instruction (what to teach) than with what the student should be able to do with the content, (if it could be applied to some meaningful context)
 - Tyler noticed that teachers had three degrees of concern as:
 - (a) concern for self (can I make it through the day/ class?)
 - (b) Concern for tasks (what will I teach next?)
 - (c) Concern for students (are they learning what I teach?)
 - relative little attention was being focused on student outcomes;
 - to help teachers shift their concern to impact on students, Tyler developed the idea of behavioural objectives;

What are the dangers of not having Objectives?

- if student outcomes are ignored, your planning may not go beyond a concern for yourself or the teaching task and learning either will not occur or will occur in undesirable ways;
- if you do not specify objectives, students cannot be sure what is expected of them, (you have not told them the extent to which they must be able to perform the behaviour you are teaching.

Reasons For Using Behaviourial Objectives

- (a) Behaviourial Objectives (BO) clarify the intent of the lesson for the teacher;
 - with clearly stated outcomes in mind, the teacher is better able to design appropriate learning experiences for the class/student;
- (b) BO also clarify the intent of the lesson for the learner;
 - the student is able to use time more efficiently, since he/she knows what is to be performed;
- (c) BO make it easier to measure student achievement;
 - since the criteria are stated in the objective, both student and teacher know what is expected of the student, and the student gets immediate feedback about the performance;
- (d) BO make it easier to measure effectiveness of instruction;
 - the teacher's job is to aid students' learning; since the level of performance is stated, it is easier to determine if the selected materials, visual aids, and teaching strategies have been helpful to the student in achieving the stated objective;
- (e) BO must help to develop a more efficient communication system among teachers, students, administrators, and parents;

- a well stated BO gives them all a common frame of reference for discussion;

Purpose of Behaviourial Objectives

1) Specifying the Learning Outcomes - identify an observable learning outcome,

- observable / measurable - the key here is your choice of words

eg: well rounded, broadly educated or well fed.

- vague usage gives us the most trouble in writing behavioral objectives;

- write behavioural outcomes in precise language that makes observation and measurement specific and non-controversial;

- action verb eg: differentiate, identify, solve, compare and contrast;

- keep in mind not all verbs are suitable;

- do not confuse learning outcomes with learning activity.

- learning activity is not an end in itself and can only work towards a learning outcome;

eg: sing the national anthem

- it is an objective if its aim is to have stage fright when student sings in public;

- if it is practice for a later performance, then it is a learning activity;

2) Identifying the Conditions

- the second purpose for writing behavioural objectives is to identify specific conditions under which learning will occur.

eg: Using a centigrade thermometer, measure the temperature every 1 minute, to an accuracy of $.5^{\circ}$

- Use a compass and ruler, construct an angle of 60° , to 1° accuracy.

3) Stating Criterion Levels

- the third purpose of a behavioural objective is to state the level of performance that must be attained to meet the objective;

- you must specify how much of the behaviour is required for you to consider the objective to be attained;

(it is one of the most misunderstood aspect of writing objectives)

- the mistake is the assumption that one single correct level of proficiency exist, and that once established, it must remain in its original form;

eg: Using an electronic calculator, the student will solve problems involving the addition of two-digit numbers; (no criterion)

Using an electronic calculator, the student will correctly solve 8 out of 10 problems involving the addition of two-digit numbers; (criterion)

* Remember to keep objectives simple

- do not be too sophisticated in measuring learning outcomes

- resist temptation to be tricky;

Difference Between Learning Outcomes and Behaviourial Objectives

- objectives (what you want the students to achieve)

- outcomes (what you expect the students will achieve)

- outcomes can only be written when there is some measure of past experience used in terms of your expectations from the student;

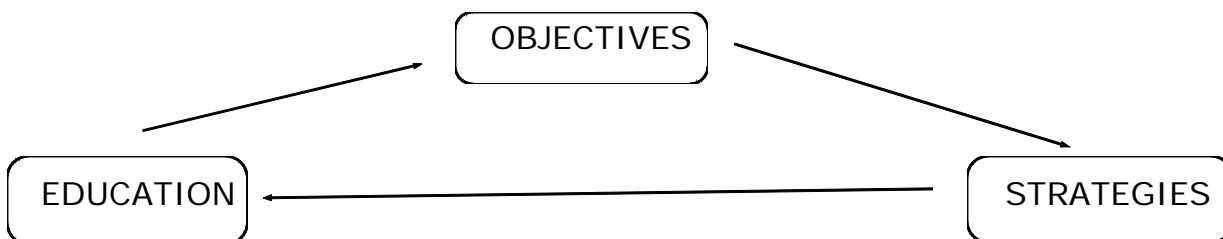
TAXONOMIES

- Teacher behaviours are not all the same;
- teacher behaviours are the stimuli which brings out responses in students. (these responses are the indications of learning taking place)
 - If teachers act differently, then the students will all act differently. (students are thus [we can conclude] learning different behaviours)
 - Taxonomies are classification tools that teachers use to describe these different learning outcomes.
 - Teachers are identified by the different actions they performed; these actions may include:
 - (1) formulating of performance/behaviourial objectives,
 - (2) questions to be asked,
 - (3) test to be administered
 - Teachers can generate different objectives, ask different questions and formulate different tests on basically the same topic or content, reflect differences in teachers/aims.
 - One way of examining and comparing the differences in teachers emphasis is to analyze these teachers behaviours in terms of a taxonomy.
- A taxonomy is a classification system that education use to observe, compare and evaluate performance objectives, questions, written materials, and tests.
- A taxonomy is a hierarchical classification system that can be used to describe and sequence learning activities.
- A taxonomy is a classification scheme with categories arranged in hierarchal order;

Hierarchical – ranking where each level is subordinate to the one above it
Classification – a way of grouping selected objects together.

HOW CAN TAXONOMIES BE USED?

- teaching can be envision as a triad of acts



- taxonomies can be used at all stages in teaching;
- a taxonomy can be used in each of these processes; in formulating objectives at an appropriate level; in developing classroom questions and learning exercises; and in constructing evaluation instruments that are congruent with the objectives and strategies previously employed;

In other words:

- the taxonomies can be used to decide what to teach, how to teach, and how to evaluate the effectiveness of our teaching.

Function of the Taxonomy

- (1) promote a range of objectives
 - prevent the teacher from over emphasizing one level
 - a taxonomy not only adds variety to the teacher's repertoire but also gives greater breadth to his/her objectives.
- (2) Sequence Objectives
 - provides means of sequencing learning from simple outcomes to complex outcomes.
- (3) Individualize Instruction
 - by identifying and sequencing a number of learning objectives and activities in terms of a taxonomy, the teacher allows the students with differing capabilities to start at different parts in a taxonomy and to proceed through the sequenced activities at different rates.
- (4) Reinforce Learning.
 - reinforcement of previous learning occurs if learning experiences are sequenced in terms of a taxonomy. (Simple to complex)
- (5) Provide a Cognitive Structure.
 - students learn and retain information better if it is organized into some type of cognitive structure rather than presented as isolated items.
- (6) Provide for more appropriate teaching strategies and evaluation techniques that coincide with the level of the objective.
- (7) Help to diagnose learning problems.
 - can examine systematically which level the learner is experiencing/encountering learning difficulty.
 - thereby prescribe cognitive experiences to help the student overcome the specific learning deficit.
- (8) Design Appropriate test items.
 - research, shows, teacher tend to teach at the lower levels, but tests at the higher level. (unfair to students)
- (9) Assist in Instructional Decision-Making.
 - taxonomy should act as a guide to lectures and help to make decision leading to better instruction in the classroom. (main goal of teaching).

DOMAINS

- Educators have divided the types of learning that take place in schools into three areas called domains

1. Affective Domain - deals with development of attitudes, interests, beliefs, values;

- Affective objectives deal with feeling, emotion, attitude, appreciation, valuing.
(when a teacher is concerned with a student's boredom with reading - affective domain)

2. Psychomotor Domain - deals with manipulative or motor skills, coordination of physical movements and bodily performances;

- Psychomotor objectives deal with skilled ways of moving, such as hand-writing, typewriting, dancing, playing a musical instrument, etc.

3. Cognitive Domain - development of intellectual abilities, skills and knowledge;
- cognitive objectives deal with processes like knowing, perceiving, recognizing, thinking, conceiving, judging, and reasoning.

(when a teacher is concerned about a student's ability to spell referring to cognitive domain)

- most of the time teachers tend to be stuck at this level;

The most widely used classification system for the cognitive domain was introduced in 1956 by Benjamin Bloom - called Bloom's taxonomy.

Bloom's taxonomy classifies cognitive behaviours into six categories ranging from fairly simple to more complex behaviours:

(i) KNOWLEDGE - to remember, to recall information such as:

(a) specific facts, (b) terminology, (c) problem solving, (d) strategies, (e) classifications and categories, (f) methodology, and (g) rules;

- (behaviours) remembering, memorizing, recognizing, recalling, recollecting, retaining,

- knowledge serves as the foundation for other categories;

Define	list	recall	describe	match
recite	identify	name	select	label
outline	state			

eg: the student will recall the three major domain without error by Wednesday

(ii) COMPREHENSION - require some degree of understanding;

- students are expected to be able to change the form of a communication; translate; restate what has been read; see connections or relationships among parts; draw conclusions; finding similarities and differences and making comparison;

- the transformation of information into more understandable terms;

- to get students to understand the material and not just memorize it;

(a) Interpretation - ability to reorder ideas and comprehend interrelationship; eg: gathering data from a variety of sources, preparing an organized report;

- how? process why? reason what are some similarities? compare what differences exist?

(b) Translation - idea from one form into a parallel form with the meaning retained;

eg. stating problems in your own words, translating words and phrase from a foreign language, interpreting a diagram; - summarization;

(c) Use of Examples - if understanding has taken place;

(d) Definition - construct in his/her own words a description or idea;

(e) Extrapolation - ability to beyond given data; eg: drawing conclusions, predicting trends;

convert	defend	discriminate	distinguish
estimate	explain	extend	generalize
infer	paraphrase	predict	summarize

(iii) APPLICATION - Using information to arrive at a solution to a problem

- applying knowledge to actual situations;

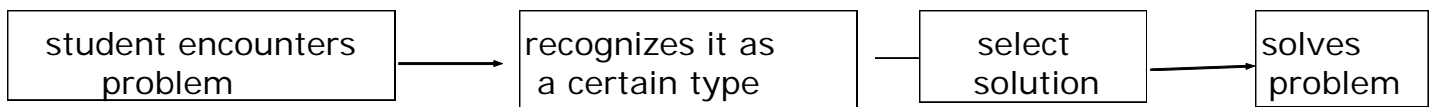
- teacher must be concern with solution and process

- when / how to use proper method;

- the problem must be made unique or novel;

- (if the problem was gone over the day before in class, the task for the student would involve mere recall, making it a knowledge-level activity;

- application has a four-step process:



change	modify	relate	compute
operate	solve	demonstrate	organize
transfer	develop	prepare	use

(iv) ANALYSIS - involve the bringing together of separate components to arrive at a solution;

- how various parts of a complex process pr object are arranged and work together to achieve a certain effect;

- breaking down objects or ideas into simpler parts and seeing how the parts relate and are organized

- often examples of reasoning;

- judge whether something is logical or not;

- goes beyond comprehension, goes beneath the surface;

- analysis involves working backwards, taking a situation / event, explaining how the parts fit together to give a total effect;

(comprehension describes what the effect is)

- (a) Identification of issues - goes beyond the information in the message; shows relationships between assumption and key points;
- (b) Implications - point out relationships between two propositions
- (c) Motives - reasons for behaviour;
- (d) Persuasive techniques - how advantageous/ or how other types of commands are designed to sway opinions;

breakdown	distinguish	point out	deduce
illustrate	relate	diagram	infer
separate out	differentiate	outline	subdivide

- (v) SYNTHESIS - merging of elements so as to form a unique new entity;
 - the process of combining parts in such a way as to constitute a pattern or structure that did not exist before;
 - rearranging components ideas into a new whole;
 - solve some unfamiliar problem;
 - teacher uses subjective judgement in evaluating;

categorizes	create	formulate	compile
design	predict	compose	devise
produce			

- (vi) EVALUATION - objectives written at this level requires the student to form judgements and to make decisions about the value of methods, ideas, people, or products that have a specific purpose

appraise	contrast	defend	justify
validate	compare	criticize	judge
support			

THE USE OF TEACHING AIDS IN THE CLASSROOM

- The more stimuli that can influence the nervous system of the student, the greater will be the possibility of increased learning
- As many sense organs as can be influenced should be activated in the teaching process
- teaching aids and instructional media play an important role in this regard
- changes in society usually bring changes to its institutions, including education;
- increasing emphasis upon innovations (curriculum, methods, staffing, resources, instructional organization)
- changing instructional patterns; (large group instruction, small seminar class instruction, team teaching, thematic teaching)
- increasing individualization of instruction; (CAI, computers)
- Greater use of media in instruction; (learning resource centres) (the modern trend of the role of libraries in this regard)
- "Instructional media - devices or materials which present which present a body of information and are largely self-supporting rather than supplementary in the teaching-learning process. (distinguish from general teaching aids)
- teaching aids - compliments (is used along/assisting in the mode of instruction)
- instructional media - supplements (in addition to) Since children learn mostly from what they do, the instructional materials used are crucial because these materials determine the activities in which students engage;
- such materials and its usage must be consistent with teachers objectives, (purpose - enhance learning environment) [instructional media operates on the premise that the more stimuli is used in getting information to the student, the greater would be the response -learning process]

Textbooks:

advantages: - conforms more closely to the objectives of education;