CHAPTER 3: CONDUCTING A GOAL ANALYSIS

Presented by:
NURSURAYA HUSSAIN
NURUL ATIKAH MUSTAFA

CONCEPTS

1) The Analysis of the Goal statement → How to determine exactly what the learner will be able to do.

2) Review each of the following abbreviated goal statements:
   
a) Given a list of cities, name the state of which each is the capital.
b) Given a bank statement and a checkbook, balance the checkbook.
c) Set up and operate a digital video camera.
d) Choose to make lifestyle decisions that reflect positive lifelong health concerns.

QUESTION: “HOW DO WE DETERMINE WHAT SKILLS MUST BE LEARNED IN ORDER TO ACHIEVE THESE GOALS?”

3) Each goal should be classified into one of Gagné’s (1985) domains of learning because of the implications for the goal analysis and the selection of the appropriate subordinate skills analysis technique.
FOUR Gagné’s (1985) domains of learning are:-

I. VERBAL INFORMATION

1) First sample goal:
   - Given a list of cities, name the state of which each is the capital

2) No symbolic manipulation \(\rightarrow\) no problem solving or rule applying.

3) Verbal Information \(\rightarrow\) requires the learners to provide specific responses to relatively specific questions.

4) Verbal information goals can be spotted by the type of verbs that are used. E.g.: List, provide specific information or describe something.

5) The task for the learner is to store the information in memory during the instruction and remember it for the test. Rote Learning.

II. INTELLECTUAL SKILLS

1) Second sample goals:
   - Given a bank statement and a checkbook, balance the checkbook

2) Intellectual skills \(\rightarrow\) require the learner to do some unique cognitive activity in the sense that the learner must be able to solve a problem or perform an activity with previously unencountered information or examples.

3) Any goals that require a learner to manipulate symbolic information in some way will be an intellectual skill. (E.g.: \(a^2 + b^2 = c^2\))

4) It is important to be able to identify the various levels of intellectual skills. Concepts are combined to produce rules. E.g.: page 42
5) The highest level of intellectual skill is **Problem Solving**. (e.g.: PBL)

<table>
<thead>
<tr>
<th>a) Well-structured</th>
<th>b) Ill-structured</th>
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<tbody>
<tr>
<td>ü Typical</td>
<td>ü Problems in which not all the data required for a solution are readily available for the learner; and, even the nature of the goal is not clear.</td>
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<tr>
<td>ü Usually considered to be an application problem</td>
<td>ü Multiple processes can be used to reach a solution but no one solution is considered as a correct solution.</td>
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<td>ü E.g.: page 42</td>
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### III. PSYCHOMOTOR SKILLS

- Third sample goal:
  - Set up and operate a digital video camera.
  
  - Involves the coordination of **mental and physical activities**.

- The characteristics are → the learners must **execute muscular actions**, with or without equipment, to achieve specified results. E.g.: page 42

### IV. ATTITUDES

1) Fourth sample goal:
   - Choose to make lifestyle decisions that reflect positive lifelong health concerns.

2) Described as the tendency to make particular **choices or decisions**.

3) To identify, determine → whether the learners will **have a choice to make** and whether the goal indicates the direction in which the decision is to be influenced.

4) Another characteristic: → goals probably will not be achieved at the end of the instruction. They are, quite often, **long-term goals** but extremely important.

5) To determine whether learners have “achieved” an attitude is by having them do something which is a psychomotor skill, intellectual skill, or verbal information.

6) Can be viewed as **influencing learners to choose**, under certain circumstances, to perform an intellectual skill, or to state certain verbal information.
Goals Analysis Procedures

- The best technique to use in analyzing a goal is to **describe in step by step** exactly what a person would be doing when performing the goal.

- The key words are **physical activities** and **mental steps**

- One of the steps requires:
  - A decision
  - Several alternate paths

- Each step is stated in a box as shown in the flow diagram below:

  ![Flow Diagram]

- Each step must include a verb that describes:
  - Observable behaviors (adding, striking)
  - Unobservable behaviors (decision making)

- **Decision making:**
  - YES

  ![Decision Flowchart]
Goals analysis:
- Analysis of the steps to be performed (intellectual and psychomotor skills)
- It is a list of the major topics to be learned (verbal information)

Analysis of Sub-Steps

- To examine each the key steps in the goal and imagine performing the step or explaining it to a learner.
  - E.g. ‘boil water’
    1. Get a pan
    2. Fill it with water
    3. Place the pan on a burner
    4. Turn on the burner
    5. Is water bubbling?
    6. Remove pan

- The appropriate diagramming of sub steps is shown in the generic diagram that follows:
More Suggestion for Identifying Steps within a Goal

- Describe yourself the kind of test item or assessment you would use to determine. Next, think about the steps that the learner would have to go through to respond to your assessment or test.

- Test yourself: observe yourself, both in the physical and mental sense, performing the goal. Note each step you go through and the decisions you have to make.