Jadual 2.7


**Pre instructional Strategies**

1. Instructional objective
   - Terminal objectives and enabling objectives
   - Cognitive objectives vs. behavioral objectives
   - Performance criterion and condition specifications
2. Advance organizer
   - Expository organizer vs. comparative organizer
   - Verbal organizer vs. pictorial organizer
3. Overview
   - Narrative overview
   - Topic listing
   - Orienting questions
4. Pretest
   - Types of test (e.g., objective – true-false, multiple choice, matching – vs. subjective – short answer, essay)
   - Order of test item presentation (e.g., random, sequence, response sensitive)
   - Item replacement (e.g., with or without replacement of presented items)
   - Timing (e.g., limited vs. unlimited)
   - Reference (e.g., criterion-reference vs. norm-reference)

**Knowledge Presentation Strategies**

1. Types of knowledge representation
   - Generality (e.g., definition, rules, principles)
   - Instance: diversity and complexity (e.g., example and non-example problems)
   - Generality help (e.g., analytical explanation of generality)
   - Instance help (e.g., analytical explanation of instance)
2. Formats of knowledge presentation
   - Enactive, concrete physical presentation
   - Iconic, pictorial/graphic representation
   - Symbolic, abstract verbal, or notational representation
3. Forms of knowledge presentation
   - Expository, statement form
   - Interrogatory, question form
4. Techniques for facilitating knowledge acquisition
   - Mnemonic
   - Metaphors and analogies
   - Attribute isolations (e.g., coloring, underlining)
   - Verbal articulation
   - Observation and emulation

**Interaction Strategies**

1. Questions
   - Level of questions (e.g., understanding/idea vs. factual information)
   - Time of questioning (e.g., before or after instruction)
   - Response mode required (e.g., selective vs. constructive; overt vs. covert)
2. Hints and prompts
   - Formal, thematic, algorithmic, etc.
   - Scaffolding (e.g., gradual withdraw of instructor supports)
Reminder and refreshment

3. Feedback
   Amount of information (e.g., knowledge of results, analytical explanation, algorithmic feedback, reflective comparison)
   Time of feedback (e.g., immediate vs. delayed feedback)
   Type of feedback (e.g., cognitive/informative feedback vs. psychological reinforcing)

**Instructional Control Strategies**

1. Sequence
   - Linear
   - Branching
   - Response sensitive
   - Response sensitive plus aptitude matched

2. Control options
   - Program control
   - Learner control
   - Learner control with advice
   - Condition-dependent mixed control

**Post instructional Strategies**

1. Summary
   - Narrative review
   - Topic listing
   - Review questions

2. Post organizer
   - Conceptual mapping
   - Synthesizing

3. Posttest
   - Type of test (e.g., objective – true-false, multiple choice, matching – vs. subjective – short answer, essay)
   - Order of test item presentation (e.g., random, sequence, response sensitive)
   - Item replacement (e.g., with or without replacement of presented items)
   - Timing (e.g., limited vs. unlimited)
   - Reference (e.g., criterion-reference vs. norm-reference)

Note: The listing of instructional strategies is not exhaustive and the classifications are arbitrary.