

CONCEPTS OF INSTRUCTIONAL DESIGN PROCESS (IDP)

1. Some definition:

- Instruction → teaching, training, coaching, tutoring
- Design → plan, blueprint, intend, sketch, draft

2. Instructional Design Process (IDP):

- A self-correcting system approach that seeks to apply scientifically derived principles to the planning, design, creation, implementation and evaluation of effective and efficient instruction – Shrock, 1995 –
- Instructional design is a process through which we can identify the nature of the learning that is intended to take place, workout an approach to teaching that will facilitate achievement of that learning and administer some kind of assessment that will determine whether the intended learning has, in fact, taken place.

3. Purpose of IDP

- To identify the outcomes of the instruction
- To guide the development of the instructional content
- To establish how instructional effectiveness will be evaluated

4. The systematic development of instruction uses adult learning theories:

- There is need for training/learning
- The learning events are well designed
- Quality training material are developed
- Learning events are implemented using appropriate strategies or approaches

- Learning events are evaluated to ensure that learning has taken place.

5. Theories concerned with four aspects of instruction

- The events to take place during instruction
- The kind of outcomes to be taught or learned
- The sequence of instructional events
- The appropriate activities within each event

6. Instructional design theories:

- Gagne & Dick (1983) describe instructional design theories as an attempt to relate specified events of instruction to learning processes and learning outcomes
- Gagne's instructional design theory
 - Categorized the learning outcomes (whether an attitude, concept, motor skill) and then organized instructional events for each kind of outcome during a lesson.
- Gagne's instructional events consist of 9 activities:
 - Gaining attention
 - Informing the learner of the objectives
 - Stimulating recall of prior knowledge (pre-requisite learning)
 - Presenting the content or the stimulus materials
 - Providing learning guidance
 - Eliciting performance
 - Providing feedback about performance correctness
 - Assessing the performance
 - Enhancing the retention and transfer

The first three events → prepare the learner to learn

The 4th and 5th events → start the actual teaching learning process

The 6th and 7th events → enhance the learning by practicing and providing feedback

The 8th events → is the final assessment

The 9th events → enhancing retention and transfer

- The Gagne's ID based on different types of learning outcomes needing different learning activities and therefore different instructional condition

7. Basic models of IDP which commonly used is ADDIE model

- **Analysis**
 - Analysis is the basis for all other phases of IDP
 - It identify barriers/constrains, define problem(s), identify the cause of problem(s), and determine possible solutions
 - It may require need analysis, job analysis and task analysis
 - Output of this phase is the instructional goals and a list of tasks to be instructed
 - The output will be the inputs for design phase
- **Design**
 - Uses the outputs of the analysis phase to develop the course syllabus, write course objectives and develop the course outline and schedule
 - Outputs of this phase include the course syllabus, outline and schedule which serve as a map for the delivery of the course
 - Elements includes learner/audience description, writing objectives and test items, selecting delivery system and sequencing the instruction
 - The output will be the inputs for Development phase
 - Audience analysis – a description of the people who will receive the training. It includes
 - The number of learners

- Their experience level
- Their reading ability
- Their attitudes and interests
- **Development**
 - Development phase builds on both the analysis and design phase
 - Focus on generating the lesson plans, course documents and lesson materials for the faculty, trainers and participants during the delivery of the course.
 - Outputs of this phase include competency-based learning guides and checklists, pre- and mid-course questionnaires, trainer's note, presentation plans, assignment sheets, case studies
- **Implementation**
 - Refer to the actual delivery of the instruction
 - The purpose of this phase is the effective and efficient delivery of instruction
 - It promotes students understanding of material, support the student mastery of objectives
 - It ensures student's transfer of knowledge from the instructional setting to the practical life
- **Evaluation**
 - It occurs throughout the entire IDP - within phases, between the phases and after implementation.
 - Evaluation measures the effectiveness and efficiency of the instruction
 - It measures whether or not the training solved the original training problem
 - What can do to improve the training
 - How training impacts the bottom line

- The ADDIE model is an interactive IDP, where the result of the formative evaluation of each phases may lead the instructional designer back to any previous phases. The end product of one phase is the starting product of the next phases.

8. Standard System View of Instructional System Design (Step by step)

- I. Conduct needs assessment
- II. Establish overall goal
- III. Conduct tasks analysis
- IV. Specify objective
- V. Develop assessment strategies
- VI. Select media
- VII. Produce materials
- VIII. Conduct formative evaluation (revised as required)
- IX. Conduct summative evaluation