The ASSURE Model of Instructional Design

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A presentation to KEPAD & KNU
NTID Student Development Center

PEN-International

http://www.pen.ntid.rit.edu

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Based on Educational Technology Course

- Educational Technology and Teaching
  - [http://www.rit.edu/~pen2](http://www.rit.edu/~pen2)
- 10 Week Blended Course for Graduate Students

- *Instructional Media and Technologies for Learning*
myCourses

- Educational Technology & Teaching
- Interest in Being Added??
- (Example)
Objective

A. Participants at the ASSURE workshop,
B. Will describe the major parts of the ASSURE model of instructional development and give an example from their own experience, of each step in the process,
C. At the conclusion of the lecture, on note paper,
D. With 100% accuracy.
Instructional Presentation

- Theory
- Local Examples
- NTID Experience
Overview of Instructional Technology Terms

- **Instructional Technology**: systemic and systematic application of strategies and techniques derived from behavioral, cognitive, and constructivist theories to the solution of instructional problems.

- **Instructional Design**: systematic development of instructional specifications using learning and instructional theory to ensure the quality of instruction.

- **Instructional Development**: process of implementing the design plans.

(Adapted from "Training and Instructional Design", Applied Research Laboratory, Penn State University)
A Model to Help
ASSURE Learning

A - Analyze Learners
S - State Objectives
S - Select Methods, Media, and Materials
S - Utilize Media and Materials
U - Require Learner Participation
R - Evaluate and Revise
E - Evaluate and Revise
Analyze Learners

- General Characteristics
- Specific Entry Competencies
- Learning Styles
  - Perceptual Preferences and Strengths
  - Information Processing Habits
  - Motivational Factors
  - Physiological Factors
Analyze Learners

- 18 Year Old Deaf Students
  - Read at 4\textsuperscript{th} to 6\textsuperscript{th} grade level
  - Write at 9 to 10 year old level

- Use Different Reading Decoding Strategies

- Model & Social Interaction to Learn Writing
Analyze Learners

- Depend more on visual information
- Difficulty with multiple meanings of words
- Activation of long-term memory may not be as directed or focused
State Objectives

- ABCD’s of Well Stated Objectives
  - Audience
  - Behavior
  - Conditions
  - Degree

- Classification of Objectives

- Objectives and Individual Differences
Appraisal Checklist: Objectives

**Audience**
- Specifies learners

**Behavior**
- Learner performance
- Observable behavior
- Real-world skill

**Conditions**
- Equipment, tools, aids or references that may be used
- Environmental conditions

**Degree**
- States standard for acceptable performance (time, accuracy, proportion, quality)
State Objectives

- Focus on individual
- "Enabling objectives"
- Demonstrate expected performance
- Show sample test questions
- Recall recent, relevant knowledge
- Offer remediation
- Non-linear sequence
Select Methods, Media, & Materials

- Choosing a Method
- Choosing a Media Format
- Obtaining Specific Materials
- Selecting Available Materials
  - Involving the Media/Technology Specialist
  - Surveying the Sources
  - Selection Criteria
  - The Instructor’s Personal File
- Modifying Existing Materials
- Designing New Materials
Select Methods, Media, & Materials

- Available Media?
- Materials Available? Resources?
- Selecting Materials?
- Modifying Existing Materials?
- Designing New Materials? Resources?
Select Methods, Media, & Materials

- Make vocabulary lists for unfamiliar science, math or technology terms
- If formulas or equations are to be displayed on the board, make a paper copy for the deaf student. Equations are difficult to sign and cannot easily be displayed in caption systems.
- Suggest alternative web sites
- Use graphics whenever possible
Utilize Media & Materials

- Preview the Materials
- Prepare the Materials
- Prepare the Environment
- Prepare the Learners
- Provide the Learning Experience
AV Showmanship – Classroom Presentation Skills

- Getting Ready
  - Planning
  - Rehearsing
  - Setting up

- Presenting
  - Anxiety
  - Delivery
  - Voice
  - Eye Contact
  - Gestures
  - Visuals
Utilize Media & Materials

- Typical Classroom?
- Presentation Technology
- Practice Opportunities
Utilize Media & Materials

- Deaf students report that content knowledge, use of visuals, good communication skills are characteristics of a good teacher (Lang et al, 1993)
- Deaf students prefer teachers who have a rapport and caring attitude (Lang et al 1994)
- Arrange classroom for the best communication.
- Establish a communication plan
Require Learner Participation

- The one condition that pertains to all objectives is *practice*!
- Learning is an active process; mental processing, not physical activity
- FEEDBACK!
  - Meaningful information to correct performance
Require Learner Participation

- Strategies to promote learner participation?
Require Learner Participation

- Role playing improves retention of information over lecture presentation (Quinsland, 1986)
- Students with lower reading skills did as well on tests as students with higher reading skills, if they interacted with the material. (Dowaliby & Lang, 1999)
Require Learner Participation

- Significant correlation between deaf students course grades and participative learning style
Evaluate and Revise

- Assessment of Learner Achievement
- Evaluation of Methods and Media
- Revision
Evaluate and Revise

How would you revise this presentation?
- Learner achievement?
- Materials and methods?
- Attitude towards workshops?
Evaluate & Revise

- Formative Evaluation
- Summative Evaluation
- Attain Objectives?
- Attitude Towards Experience?
- Efficiency of Instruction?
Theory Into Practice (TIP)

http://tip.psychology.org/

The Theories

- ACT* (J. Anderson)
- Adult Learning Theory (P. Cross)
- Algo-Heuristic Theory (L. Landau)
- Andragogy (M. Knowles)
- Anchored Instruction (J. Bransford)
- Aptitude-Treatment Interaction (L. metaphor)
- Attribution Theory (B. Weiner)
- Cognitive Dissonance Theory (L. Festinger)
- Cognitive Flexibility Theory (R. Spiro)
- Cognitive Load Theory (J. Sweller)
- Component Display Theory (M. K. Jones)
- Conditions of Learning (R. Gagne)

1. gaining attention (reception)
2. informing learners of the objective (expectancy)
3. stimulating recall of prior learning (retrieval)
4. presenting the stimulus (selective perception)
5. providing learning guidance (semantic encoding)
6. eliciting performance (responding)
7. providing feedback (reinforcement)
8. assessing performance (retrieval)
9. enhancing retention and transfer (generalization)
References