Planning, Designing, Producing and Evaluating Instructional Media

Overview

Problem → Planning → Designing → Producing → Evaluating → Implementation

Contents

- Idea/Purpose
- Audience Analysis
- Objectives
- Research, Media and Budget
- Production
- Evaluation

Idea/Purpose

Starting Point

- Problem
- Interview / Questionnaire

Audience’s Needs

- Information / Knowledge
- Skills
- Desired Attitude
Audience Analysis

Characteristics
- Age
- Educational Level
- Job / Title
- Cultural Background
- Geographic Location

Dale’s Cone of Experience

Visual Symbol

Entry Competency
- Prerequisite knowledge and skills
  - Entry Test
- Target knowledge and skills
  - Pretest

Learning Styles
- Perceptual Preferences and Strength
- Information Processing Habits
- Motivational Factors
- Physiological Factors
Learning Styles

- Perceptual Preferences and Strength
  - Auditory
  - Visual
  - Tactile
  - Kinesthetic

Learning Styles

- Information Processing Habits

<table>
<thead>
<tr>
<th></th>
<th>Sequential</th>
<th>Random</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete</td>
<td>Workbook, Programmed instruction</td>
<td>Game, Simulation</td>
</tr>
<tr>
<td>Abstract</td>
<td>Reading, Listening</td>
<td>Group discussion, Lecture with Q&amp;A</td>
</tr>
</tbody>
</table>

Learning Styles

- Motivational Factors
  - Achievement
  - Social Motivation
  - Competitive
- ARCS model - John M. Keller

Learning Styles

- ARCS model
  - Attention: Is it interesting for me?
  - Relevance: Is it important to me?
  - Confidence: Can I do it, if I try?
  - Satisfaction: Do I want to do it, again?

Learning Styles

- Physiological Factors
  - Gender
  - Health
  - Environment

Size

- Individuals
- Groups
- Large Audience
Objectives

From Purpose to Objectives

- General Idea to:
  - Clear-Cut
  - Specific Statements
- In Behavioral terms

As Specific as Possible

- Students will improve their mathematical skills
- The second-grade students will be able to solve correctly any single-digit addition problem without using calculators

ABCDs of Objectives

- A: Audience
- B: Behavior
- C: Conditions
- D: Degree

Audience

- What the LEARNER does
- Not what the instructor does
- Whose capability is going to be changed?

Behavior

- New Capability
- Action
- Observable Performance
Planning, Designing, Producing and Evaluating Instructional Media

Conditions
- Allowed or not allowed
  - Tools
  - Equipment

Degree
- Standard or Criterion
  - Accuracy
  - Proficiency
  - Time

Example
- Given necessary cooking tools and 2 eggs (Condition), 5th grade students who can make flied eggs (Audience) will be able to make an omelet (Behavior) that is eatable and in good shape, in 10 minutes (Degree).

Research, Media and Budget

Research
- Facts About a Subject
- Details of a Task
  - Careful study about topics
  - Interviews
  - Visit to suitable facilities
  - Libraries

Team Approach
- SME (Subject Matter Expert)
- Instructional Designer
- Technical Staff
Planning, Designing, Producing and Evaluating Instructional Media

Media
- Video
- Printed Material
- Desktop Presentation
- CD-ROM
- WBT, etc

Video
- Manipulation of Time
  - Compression of time
  - Expansion of time
- Manipulation of Space
- Animation

Video
- Motion
- Process
- Risk-free Observation
- Dramatization
- Unfamiliar scene

Printed Material
- Flexibility
- No electricity needed
- Economical

Printed Material
- Reading Level
- Prior Knowledge
- One-Way Presentation

Desktop Presentation
- Can be revised at the last minute
- Linear Structure
- Controlled by Presenter
Planning, Designing, Producing and Evaluating
Instructional Media

CD-ROM
- Interactivity
- Easy to Produce
- Relatively Economical
- Require PC

WBT
- Interactivity
- Latest Information or Material
- Internet Access

Obtaining Materials
- Selecting available materials
- Modifying existing materials
- Designing new materials

Specification
- Type of Material
- Type of Media
- Length
- Facilities / Equipment
- Schedule

Budget
- Purchase
- Rental
- Service
- Overhead Charges

Content Outline
- Framework For Your Product
  - Basic Topics
    - Support your objectives
  - Factual Information
    - Explains each topic
Planning, Designing, Producing and Evaluating Instructional Media

Planning
- Idea
- Audience
- Objectives
- Media
- Research
- Budget
- Specification
- Proposal & Content Outline

Design

Storyboard
- Think in Pictures
- Visualization
  - Sketches
  - Graphic Images
  - Photographs
- Show it to Project Members

Script
- Detailed Blueprint
- Directions For Your Visuals
  - Pictures, Artwork, Audio Recording, Video Recording and Filming
- Narration
  - Ideas or Brief Statements

Designing

Production
Planning, Designing, Producing and Evaluating Instructional Media

Digital Video
- Compose a Scene
- Alternative Ways
  - Animation
- Editing
  - Connect Each Shot

Sound Recordings
- Narration Script
- Music / Sound Effects
- Ambient Sound
- Editing

Photography
- Shooting
- Digitizing
- Retouching
- Calibration
- Trimming

Graphics
- Art Work
  - Logo, Title, Icon, Button, etc.
- Visual Design and Layout

Authoring
- Integrated Multimedia Contents
  - Combining Various Digital Elements
  - User Interactivity

Producing

MTEC, Okinawa International Centre
Evaluation

Rehearsal / Preview
- Formative Evaluation
- Producers’ Point of View
  - Technical Check
- Audience’s Point of View
  - Validation

Technical Check
- Review the Program
  - Quality of Visuals and Sounds
- Accuracy of Information

Validation
- Show to the Samples from Target Audience
- Check whether the Samples Learn as stated in the Objectives

Validation
- Clarity
  - Preciseness
  - Structure
  - Meaningfulness
- Usability
  - Navigation

Revision
- Where and How to be Revised
- Consider all the Available Ways
  - Production, Schedule, Budgets
- Choose the Best Way
  - Make the Material More Effective
**Planning, Designing, Producing and Evaluating Instructional Media**

**Distribution**
- Prepare Materials
  - Support Instructions
  - Guidebook / Worksheet
- Show to the Target Audience
- CD-ROM
- WBT

**Evaluation**
- Summative Evaluation
- Audience Achievement
  - Has the desired performance been achieved?
- Media and Methods

**Diagram**

- Evaluation
  - Tech'l Check & Validation
  - Distribution
  - Debug/Revision
  - END