The Costs of Technology-Based Training

Objective

• Determine the costs of technology-based training.

Constraints Analysis

• In ISD, one of the most important steps a developer takes is this step.
• It considers limitations in:
  - budget
  - availability of resources
  - and availability of the time of training participants or instructors/ facilitators.
Cost Considerations

• Ratios
  – Development cost vs. training costs
  – Not very relevant
• Should consider true costs vs. return on the investment

Cost Constraints

• Cost should be looked at in two ways:
  – Cost as an investment
  – Expected return on investment
• Real cost is equal to the true cost after we consider the returns on the results of training

Cost Considerations
Development Costs

• Training project managers
• Training designers
• Subject matter experts
• Programmers
• Staff
• Production staff
• Time spent on project X salary/wage
Cost Considerations
Development Costs

- Resources:
  - Office space, copiers, fax
  - Computers
  - Authoring and other software
  - Reproduction machines
  - Consumables

Cost Considerations
Implementation Costs

- Facilities & Equipment
- Staff
- Consumables
- Loss of productivity during training
- Travel

Cost Considerations
Maintenance Costs

- Course Evaluators/Analysts
- Training managers
- Training designers
- Subject matter experts
- Programmers
- Staff
- Production staff
Other Considerations

• Obsolescence
  - How long will the training be used?
  - Will it need updating?

• Audience
  - How many folks? Are they in one location?

• Practice
  - What kind of practice? Can job aid, video, simulation do the job?

Other Considerations

• Competence
  - Do we want to keep a trainer competent to deliver this training?
  - For how long?

• Training resources
  - Are current training resources used effectively?
  - New investment in new technology needed?

Other Considerations

• Duration
  - How many training days? Training span?

• Training Groups
  - How many groups?
  - How many people per group?
Return on Investment

- Reduced waste
- Improved productivity
- Lower cost from accidents and illness

TBT Savings

- Reduced travel expense
- Reduced time away from job
- Training when needed — reduce waste due to poor/no training
- Retraining practice available as needed
- Reduce cost for maintaining course

Selecting a Technology Solution

- Compare cost-benefit over expected life of the course.
- Consider whether technology can deliver effective training.
- Is the development feasible?
Ideas for Getting the Bucks

Getting the Bucks

- Find a strategic use
- Consider your audience
- Find a champion
- Pick a range
- Involve IT
- Do a preliminary design and build a prototype
- Write an investment proposal
- Overcome objections

Diagnostic Simulations
Diagnostic Simulations

- Assume you are a teacher.
- You have a student that is showing difficulty learning.
- You wonder if he/she has a learning difficulty.
- You turn to other specialists to determine the problem.

Diagnostic Simulations

- Appropriate for problems or situations requiring sequential decision-making.
- The simulation may require:
  - the discovery, evaluation and interpretation of relevant data
  - or the selection, interpretation and management of relevant data.

Characteristics of D-S Simulations

- The interrelated decision-making relates a situation in which the outcome is influenced by prior decisions.
- Problems are not unidimensional.
- The exercise includes info that is plausible, but is not relevant to the optimal solution of the problem.
Closed-Structure Simulations

- Developing a framework
  - Select the problem
  - Identify the participant’s role
  - Write a general script (map) with an
    - opening scene
    - possible routes through the exercise
    - the major sections and any points at which
      an irreversible choice may be selected

Closed-Structure Simulations

- Working the simulation:
  - The participant selects a category of data gathering or data management after the opening scene.
  - Then selects several options from the set of choices in that category.
  - From feedback, a second (and subsequent) set of choices is made.

Open-Structure Simulations

- Assume you are part of a joint planning staff tasked with organizing and moving a battalion landing force overseas to rescue hostages being held in a third world country.
Open-Structure Simulations

- Appropriate when the goal includes discovery or requires a team approach
- An open-ended exercise when teams can take any of several different paths
- Developers must design a situation that maintains interaction with the problem so that it is more than a discussion session.

Open-Structure Framework

- The problem
- The team roles
- The setting for the simulation
- A general sequence of expected events
- In developing the simulation, designers work back and forth between the framework and the specifics, altering each as necessary

Open-Structure Framework

- Assure ongoing activities
- Introductory info serves as a stimulus
- Project staff may act in peripheral roles to provide and receive data
- Plan staff-initiated events
- Events that may impede or slow down the inquiry may be included
Open-Structure Framework

• Reactions to anticipated decisions must be developed:
  – Results of test conducted on data
  – Info obtained from consultants
  – Lists of info requested by participants

Open-Structure Framework

• Events must be outlined on a timetable
  – Include data that will be made available and associated tests and reports that are to be prepared

Assignment

• Read Readings (on Web Site)
  – Performance Objectives
  – Diagnostic Simulations

• AND . . .
Assignment (Continued)

• Send me an email message
  - outlining your simulation topic:
  - The problem
  - The roles of participants and controllers
  - The setting for the simulation
  - The first thoughts on the general sequence of expected events

Let’ go home . . .