Challenges of Creating High-Quality Scenario-Based Distance Learning

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What is our goal?

Mindful engagement of the learner

What is scenario-based learning?

"…learning that occurs in a context, situation, or social framework. It's based on the concept of situated cognition, which is the idea that knowledge can't be known or fully understood independent of its context."

"Learning occurs because we immerse ourselves in a situation in which we're forced to perform. We get feedback from our environment and adjust our behavior."

Kindley, Randall W. "Scenario-Based E-Learning: A Step beyond Traditional E-Learning," Learning Circuits, May 2002

Who is our audience?

Adult learners: Self-directed, self-paced. Their experiences are a resource. Problem-based learning. Immediate feedback. Focused on job performance.

What are we talking about?

Asynchronous e-learning. Anytime, anywhere computer-based learning. Not instructor-led. Discrete 60-90 minute modules. Database-driven web pages that allow for learner tracking & dynamic course pages.

Why did we choose the scenario-based approach?

- Avoid duplication of "traditional" e-learning
- Teach the application of skills & knowledge; critical thinking
- Making the content "real" – duplicate practice environment

What is the framework?

1. Content & context
2. Skill application with appropriate feedback (instructional strategies)
3. Aesthetics – visual representations, interface

Content & context – the process

Working with Subject-Matter Experts

- SMEs are usually practitioners, not instructors
- Availability of SMEs determines involvement
- IDs must ask the right questions
    - Provide both content & context
    - Share failures, as well as successes (multiple outcomes, "what-ifs")
    - Get multiple perspectives
- SMEs should provide continuous feedback

The Scenario

- Don't forget your objectives!
- Multiple paths? Learners may not see them all!
- Solutions may be elusive. Scenario reflects reality!
- Realistic data

- How much “story” is necessary to engage the learner? How much is “too much?” Is the story making the learning too slow?

Skill application with appropriate feedback – the process

Choosing relevant and engaging instructional strategies

- Narrow down objectives to specific skills
- Types of interactions
    - Look at traditional exercises in new ways
    - Be creative in setting exercises in context
    - Don’t be afraid to take risks
    - Learner input may be required to continue scenario (decision points)
- Use of characters to interact with learner
- Is all the necessary information contained in the program? Does the learner have to choose?
- Help system: “Wizard” or “traditional” content
- Content in the feedback (feedback from the environment)
- Open-ended questions – learning from others; social networking in asynchronous environment

Development challenges

- Continuum of complexity
- Media needs: photos, video, audio, etc.
- Interface can be complex – attempt to replicate reality
- Flowchart, other tools
- Quantity and quality of decision points
- Much more testing required
- Build in “breaks” for the user
- Usability – test early and often
- Rapid prototyping

Rapid prototyping

- Process is iterative
- “Tollgates” – ID critique
- Be flexible, and willing to let go [desire to experiment vs. practical application]
- Encourage questions, criticism

Conclusions

- Take risks
- Be flexible
- Emerging field – lots of possibilities
- Assess the impact