Best Practices for eLearning

Introductions

• St. Louis Community College
• Workforce and Community Development
• Center for Business, Industry & Labor
• Richard Schumacher – Mgr, Technology Initiatives
Online Instruction Advantages

- Self-paced learning
- Delivering content on demand / easy content distribution
- Content reuse and collection
- Application sharing and demonstrations
- Q&A via discussion groups (instructor/facilitator response is time sensitive)
- Provides both private (email to instructor) and public (discussion group) communications
- Ways to fairly easily monitor student progress and participation
- Economy of scale, larger class sizes

Issues with Online Instruction

- Most developers and SMEs have not had the chance to experience an Internet-based course as a student – so they don’t have exposure to what works and what doesn’t
- This can create an “experimental” character to online activities
  - Difficult to gather success data
  - Difficult to interpret results
  - Difficult to interpret student perceptions
Issues with Online Instruction

- Internet-enabled courses are very different from traditional counterparts
- Need to educate students, instructors, clients and administrators about this different nature
- Students may need assistance with the online learning process and what is expected, usually requiring some face (or phone) time to help them get started or complete assignments

- Online works best for asynchronous learning activities
  - Practice testing
  - Content on demand
  - Content collection/distribution of materials
  - Self-paced learning
  - Centralized questions and answers
- There is little benefit, except for the conveniences of location or application sharing, in synchronous online learning – for every other case, a traditional classroom is superior for synchronous learning
- Availability, and rapid response (returning emails, calls, etc), becomes vital in asynchronous activities
Issues with Online Instruction

- Disruption caused by changing technology
- Key online technologies (email, html, etc) have matured, and LMS systems have embraced them
- Common communication standards (XML) and online teaching packages (SCORM) are starting to mature – making for easier, platform independent deployments
- Still too many ways to create multimedia content (especially for animation and complex interactivity)
- All the vendors have a different approach to synchronous delivery
- Synchronous delivery has issues of cost, reliability, participation limits, network issues and high bandwidth requirements

eLearning Design (ISO Usability)

- **Effectiveness**: learner’s ability to achieve specific goals in the environment, attainment of instructional objectives
- **Efficiency**: learner experiences minimal frustration and obstacles using the environment, how quickly and cost-effectively learning objectives are obtained
- **Satisfaction**: learner is comfortable and accepting of the system overall, encourages their desire to learn
**eLearning Design**

- Instructional design selects suitable resources and activities that will engage learners and encourage them to make the connections necessary for learning to occur.
- An online environment needs to be easy to use – obvious and instinctive.
- eLearning is just another learning tool – like reading a book or instructor-led training – it’s not a “total solution”.
- The biggest corporate eLearning issue is boring, low-quality content.
- People learn best when they can learn exactly what they need at exactly the moment they need it.

**eLearning Business Goals**

- Access any learning resource at any time from any place.
- Reduce trainer, facilities and travel costs.
- Standardized, consistent delivery (may be driven by unmonitored on-the-job training or legal issues).
- Scheduled training not meeting demand.
- Economy of scale, reduced cost by increased efficiency.
- More timely delivery (may be the result of a distributed workforce).
- Can be always up to date.
- Not only for employees – also for customers, partners, suppliers, resellers.
- More efficient “just enough” delivery – provide the exact content at the exact moment it is needed.
eLearning Barriers

- eLearning Barriers Facing Employees
  - Personal or dispositional (least common)
  - Learning style
  - Instructional
  - Situational (most common)
  - Organizational
  - Content Suitability
  - Technological
- Predictors of eLearning Barriers
  - Organization
  - Self-efficacy
  - Computer competence
  - Computer training

Source: “The Seven E-Learning Barriers Facing Employees,” University of Louisville, 2003

eLearning Trends

- Expect steady growth in the eLearning market
- More money is being spent on eLearning as a total percentage of overall budgets
- Focus shift to services and implementation (ROI, align learning objectives with business objectives) instead of technology and tools
- For business users, too much time is still being spent on the implementation phase
- eLearning products are starting to look alike
- Prices for LMSs and OTS content is dropping
- Emphasis on measurement and analytics – performance improvement and knowledge management is just as important as the learning component
eLearning Applications

- Orientations
- Targeted, pre-developed learning
- Custom developed training
- Blended approach
  - Best-in-class teachers create content designed for classroom presentation guided by a live facilitator
  - Allows higher quality education in more topic areas at less cost
  - Interpersonal skills development always requires face-to-face interaction
  - Course/discussion approach ("distance learning"), OJT+eLearning, online pre-assessment

Need for Constant Updating

- The sum total of human knowledge will double in 5 years
- By 2020, it is predicted to double every 73 days

Source: "Integrating e-Learning into the Workplace," Mohd Hishamuddin Harun, Medical Online Sdn Bhd
Focus on Business Needs

- Cost effective
- Time efficient
- Flexible
- Relevant
- Improves performance
- Impacts bottom line

eLearning Goals: Certification

- Content becomes a study guide that reflects the end certification test
- Content narrowly focused on the test
- Pre-test and self-checks
- Competency roadmap – works well in a LMS
- Certification Test (a pattern in wrong answers indicates where content needs to be modified)
- Learner feedback – how well did the course prepare you for the test?
- Matches traditional “school” learning model
eLearning Goals: Performance

- Content is organized to reflect the learner’s job
- Content narrowly focused on job tasks (role based and action-oriented)
- Tip sheets and job aids (measure page hits)
- Best placed in a project portal
- Performance monitoring by supervisor – has the course content influenced job tasks?
- Learner feedback – how did you use the course content on the job?
- Matches many corporate learning needs

Uses of Rapid eLearning

- Marketing
- Communication / Orientation
- Awareness
- Rapidly changing content
- Short training programs
- Environments needing a constant refreshing and retraining (such as healthcare)
- Legal requirements and mandates
- Surveys
- Part of a blended learning solution
eCBIL™ Standards

- Design criteria set upfront
- Strong learning goals and content presentation
- Multimedia experience
- Learner involvement and interactions
- Measurable results
- Business case – direct connection between learning and a defined business need
- Learner support services

eLearning System Selection

- Easy to develop courses, simple to learn how to use
- Easy to maintain or repurpose existing courses, allow modular design
- Easy to add and track learners
- Compatible with learner’s environment
- Compatible with other products & systems
- Easy for the learner to use
- 508 accessible
Why Breeze?

- Uses PowerPoint for authoring, fast & easy
  - Reduces time and resource constraints
- Accessible anytime
  - Internet access, low bandwidth needs
  - Flash player, firewall friendly
  - Sound card and speakers/headphones
- Built-in quizzes check understanding
- Easy to add audio voice-over and sync with animation
- Transmit information quickly and consistently
- Section 508 accessible

Breeze Process

PowerPoint → Publish → Create courses → Reports

- Audio
- Text
- Animation
- Interactions
- Quizzes
- Surveys
- Convert PPT to Flash
- Enroll users
- Notify users
- Monitor course
- Open/close course
- Completions
- Time in course
- Quiz scores
- Survey data
### eCBIL™ Specifications

- Length of Program
- Program Structure
- Testing
- Reports
- Graphics and Animations
- Template
- Disclaimer, Copyright, Legal
- Content
- Music
- Program Evaluation
- External Links
- Participant Materials

### eCBIL™ Checklist

- Content
- Instructional Design
- Interactivity
- Navigation
- Motivational Components
- Use of Media
- Evaluation
- Aesthetics
- Tone
Is Compelling Training Possible?

- It’s not the tools — it’s the design
- Rapid eLearning is best for:
  - Broadcasting information
  - Critical knowledge transfer (conceptual learning)
  - When resources are limited and there is a need for high instructional integrity and content urgency
- How does problem solving, analysis, synthesis and critical thinking fit into the picture?

Demonstrations

- Examples from various materials developed by the Center for Business, Industry & Labor of St. Louis Community College
- To review these later, or show to others, go to: http://www.cbil.org/helix2006
Best Practices – Design/Delivery

- Create reusable templates
- Repurpose existing content
- Focus on “need to know” content
- Link to “nice to know” content
- Integrate pre- and post-program quizzes
- Use blended learning methods
- Remember the end result you’re looking for!

Best Practices – Instructional Design

- Apply adult learning theory with its emphasis on motivation, relevance, self-management, problem solving, and experiential learning
- Learners need to remain actively engaged in the course content through frequent interactivity, practice, feedback, and reinforcement

Source: “Integrating e-Learning into the Workplace,” Mohd Hishamuddin Harun, Medical Online Sdn Bhd
**Best Practices – Development**

- Follow your development process, and make sure someone owns each step
- Analysis
- Design
  - Templates for layout and navigation
  - Storyboard in PowerPoint
- Production
  - Graphics, animations, photos, videos, music, audio
- Implementation
- Evaluation

**Best Practices – Accessibility**

- Flash player works with JAWS, Home Page Reader, and Windows-Eyes
- Visual elements must be available
  - Graphics and animations need text equivalents
  - Constant motion from transitions and animations may cause excessive screen reader refreshes
  - Make sure the narration can “stand on its own”
- Narration elements must be available
  - Add the narration transcript as the speaker notes
- Breeze 5 has additional features to enhance the experience for visually impaired users
**Best Practices – Audio**

- Always use a written script
- Make narration conversational
- Vary the voices – male/female, tone, inflections
- Narration should build on key points, not just read the text
- Synchronize narration with text and graphics
- Consider using music
- Narration should be able to stand on its own (for accessibility)

**Best Practices – Text**

- Follow basic guidelines for PowerPoint presentations regarding font size, type face, type colors, amount of text
- Sans Serif usually works better (Arial, Franklin Gothic, Verdana, Tahoma, etc), 26 points+
- Make your program look “un-PowerPointy”
- Create slide titles for all slides (appears in the outline display)
- Include narration as speaker notes (for accessibility)
**Best Practices – Graphics**

- Graphics need a similar look and feel
- Minimize clip art
- Take/use actual photos when possible
- Enter alt text for each graphic for accessibility

**Best Practices – Animation/Video**

- Animations should add to, not detract from, the message
- Subtle transitions only
- Understand and test the impact of your graphics, animation, and video decisions on low-bandwidth users
- Video only when the message cannot be communicated any other way — make it short!
Best Design Practices – Interaction

• Create meaningful interactions
• Interactions have to be planned
• Provide custom feedback
• Use techniques such as rhetorical questioning
• Allow for non-linear progress (hyperlinks and action buttons)

Best Practices – Technical

• Consider available bandwidth of users
• Follow security best practices for server
• Use appropriate LMS database store (SQL)
• Customize look of eLearning interface for your organization
• Always review the published version before releasing it to your participants
• Identify the software tool’s unique “quirks” and determine how to handle them upfront
### Best Practices – Blended Approach

- Set up sessions for learners to discuss what they had learned and how they could apply it to their jobs
- Knowing in advance there will be discussion sessions reinforces learner focus and accountability

### Future Trends

- Courses about a specific product or business process need to dynamically link to core critical documents (job aids, procedures, etc)
- Integration of document management and learning
- Content needs to be indexable by document management systems
- Online communities of practice
**Latest Trends**

- Podcasts (audio and video)
- Wikis
- Blogs
- Webcasts
- Learning on game platforms (PlayStation Portable, Xbox, etc)

These are only enablers, new technologies only succeed if they help people learn
Always goes back to the quality of the learning experience

**Challenges and Opportunities**

- How could rapid eLearning work in your organization? With your workforce clients?
- Are there clearly identified needs? What approach could be taken to developing, implementing and evaluating the business case?
- Who is responsive/excited about the possibilities?
- What are the challenges?
- What are the next steps?
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Questions?