Project Management for E-Learning
Guiding Principles that work
Ruel L.A. Ellis
Outline

- Why E-Learning
- Rationale for E-Learning
- Why E-Learning Projects Fail
- Project Management Philosophy
- Stage 1: Defining the Project
- Stage 2: Planning the E-Learning Project
- Stage 3: Managing the E-Learning Project
- Stage 4: Reviewing the E-Learning Project
- Specific E-Learning Project issues
Why E-Learning

“E-Learning is the use of Web and Internet technologies to create experiences that educate our fellow human beings.”

William Horton (2001)
Rationale for E-Learning

- Powerful and engaging interactive e-learning experiences are possible
- Course materials are available on a Just-in-Time basis, not hindered by geography
- Knowledge or information is can be current
- Material easier to update than printed documents
- Has a wide reach to hundreds or thousands of learners
Top 5–Reasons Why E–Learning Projects Fail

- Failure to play the physical architecture required to support e–learning
- Failure to recognize the magnitude of the technology component
- Failure to document and share documented e–learning projects
- Projects dominated by Multimedia stars, creating schedule slips, and not standardizing tools or techniques
- Lack of Managerial support
## Project Management Philosophy

<table>
<thead>
<tr>
<th>Project Management Stages</th>
<th>Steps in E-Learning Projects</th>
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</table>
| **Define**                | 1. Concept: What problem does the project address?  
                            | 2. Product Definition sessions: How might it look? Who will built it? |
| **Plan**                  | 3. Initial cycle planning: Schedule delivery cycles and interim delivery sessions |
| **Manage**                | 4. Development Cycles and interim delivery sessions: Creation and time-boxed delivery of e-learning features, revised cycle-plans and reprioritizing of features  
                            | 5. Product appearance: Final delivery session  
                            | 6. Product rollout: Deployment of e-learning product in the working environment |
| **Review**                | 7. Project retrospective: Formal review of project successes and lessons learned, review of *the e-learning process* |
Stage 1: Defining the Project

- Defining the problem
- Needs analysis; define objectives
- Defining Product Scope and Project Scope
  - Using Context Diagrams
Product Context Diagram
Shows what is delivered to who

- Sales Unit
  - Login and Lesson Participation
  - Ad Hoc Product and Procedures Inquiries
  - Ad hoc Product and Sales Support

- Sales and Staff Performance Support
  - Course Lessons, Assessments, and Learner Evaluations

- IT Department
  - Usage Statistics

- Sales Managers
  - Sales Staff Information and Access Permissions
  - Sales Staff Participation and Progress Reports

- HR Department
  - Sales Staff Participation and Progress Reports

- Course Development Group
  - Content Updates
Process Context Diagram
Shows the Interface of the Project Team to the rest of the organization
Role of Risk Management

- Anticipate Hazards
- Assess risk to the project;

Risk Index = (Likelihood of Occurrence) x (Overall Impact)  
(Degree of Control)

- Assign Priorities to Risk
- Manage Risk
- Determine cost of Risk
# Planning Tools

**Worksheet 3-3. Risk scoring and prioritization.**

<table>
<thead>
<tr>
<th>Risk</th>
<th>Likelihood 1–3</th>
<th>Impact 1–3</th>
<th>Control 1–3</th>
<th>Risk Index 1–9</th>
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Other Planning Issues

- Using Change Management:
  - As it relates to process changes arising out of the e-learning implementation

- Defining an Collaborative Environment:
  - An environment designed to enable and encourage collaboration

- Defining Progress Communication Plan:
  - A listing of all project stakeholders, their information requirements and the frequency of providing information
Stage 2: Planning the E-Learning Project

Project Milestones; determined by:
  ◦ Enumerating deliverables and their included activities
  ◦ Logical sequencing
  ◦ Duration estimation, based upon resource availability
  ◦ Setting time boxed delivery cycles
Stage 2: Planning the E-Learning Project

- Activity Sequencing
  - *Mandatory Dependencies*; based upon logical priorities
  - *Discretionary Dependencies*; planner has control
  - *External Dependencies*; constrained by external resource availability
  - *Cycle Review Dependences*; determined by identified deliverables during a cycle
Stage 2: Planning the E-Learning Project

- Estimating Duration;
  - for each activity identified
- Time-boxed Delivery Cycle;
  - to ensure on-time delivery and interim reviews
Stage 2: Planning the Project

• Select the most complex activities to be performed first
• Ensures that at the review activity, unaccomplished tasks are planned for the next cycle.
Stage 3: Managing the Project

- Shifting paradigm from "command and control" to "collaboration"
  - Ongoing self evaluation of the team
  - Preach the metaphor of the final product
  - Make customers aware of the Cost/Time/Quality relationship
  - Ensure participation of all groups at the interim review meetings
  - Formalize the collaborative process
  - Involve the customer throughout the process
  - Include collaboration sections in the project review document
Stage 3: PM Tools

- *Product Context Diagram*; overview of e-learning product
- *Project Context Diagram*; project team interactions with other parties
- *Priority Matrix*; relative priorities of cost/time/quality
- *Risk Management Assessment*; identification of current and potential threats
- *Change Management Procedures*; protocols to be used in expediting decisions
- *Progress Communication Plan*; specified reporting cycles and defined reports for different stakeholders
Stage 3: PM Tools

Worksheet 5-1: Internal resources for developing and implementing e-Learning project management tools and techniques.

<table>
<thead>
<tr>
<th>Tool or Technique</th>
<th>Who Can Help?</th>
<th>Date to Contact</th>
<th>Contacted IU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Context Diagramming</td>
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<tr>
<td>Priority Matrix</td>
<td></td>
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<tr>
<td>Risk Management</td>
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<tr>
<td>Change Management</td>
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<tr>
<td>Estimating</td>
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<tr>
<td>Project Management Software</td>
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<td>Course Authoring Software</td>
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<tr>
<td>Learning Management Systems</td>
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<td>Content Management Systems</td>
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<tr>
<td>E-Learning Professional Organizations</td>
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<tr>
<td>Joint Application Development (JAD) and Intern Review Session</td>
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</table>
Stage 4: Reviewing the Project

The purpose of the Project review is to:

◦ Provide closure and documentation to the delivered e-Learning Project
◦ Advance organization knowledge about the best techniques for managing e-Learning Projects
Stage 4: Reviewing the Project

- **Project Team building**
  - Survey the project team to establish the teams’ opinion of issues pertaining to the project which are to be reported

- **Reevaluating Deliverables**
  - Comparing the e-Learning product to the wish list identified during planning

- **Best Practices**
  - Adds to the organizations knowledge bank about e-Learning Projects

- **Creating and Maintaining a Risk Database**
  - Records of ways to mitigate identified risks for e-Learning Projects
E-Learning Specific Issues

- Project Selection and Initiation
- Roles and Responsibilities
- Learning Content Management Systems (LCMS)
- Launch Preparation
- E-Learning Statement of Works
- Specific Deliverables
- Overall Project Management Considerations
## Project Selection and Project Initiation

<table>
<thead>
<tr>
<th>E-Learning Project Selection Criteria</th>
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<tbody>
<tr>
<td>Highly visible and achievable</td>
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<tr>
<td>Has a <em>true champion</em></td>
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<td>Has measurable objectives</td>
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<td>Is based on a stable knowledge area</td>
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<tr>
<td>Relies on established course management tools</td>
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<tr>
<td>Has a readily available and committed SME</td>
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</tbody>
</table>
# Roles and Responsibilities

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibility</th>
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</table>
| Project Sponsor    | Obtaining funding for the project  
|                    | Assisting in decisions regarding project scope and risk activities             |
| Project Manager    | Assigns work and prioritizes available resources  
|                    | Keeps all stakeholders informed as to the state of the project                |
| Project Team       | Individuals who perform the activities required to complete the project  
|                    | Report all activities to the Project Manager                                  |
| Business Customer  | The manager of the area to benefit from the e-Learning product  
|                    | Provides the SMEs for the project team                                        |
| SMEs               | Help establish the learning objectives  
|                    | Advises as regards the appropriateness of the learning objectives  
|                    | Being available and participative                                             |
## Learning Content Management Systems

<table>
<thead>
<tr>
<th>LMS Function</th>
<th>What you need to do</th>
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<tbody>
<tr>
<td>Server as a repository</td>
<td>Establish a centralized location for all e-Learning content</td>
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<td></td>
<td>Implementation of distribution and update procedures</td>
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<tr>
<td>Creating, reusing and sharing</td>
<td>Check –in check–out procedures</td>
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<td></td>
<td>Sharing of common elements, e.g.. Templates, style sheets</td>
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<tr>
<td>Provide security</td>
<td>Control updating and distribution of materials to production</td>
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<tr>
<td>Defining learning objects for reuse</td>
<td>Keep content elements modular</td>
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<td></td>
<td>Ensures consistency and ease of updating</td>
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<tr>
<td>Provides metadata information</td>
<td>Tag and document all e-learning elements</td>
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<td></td>
<td>Makes files searchable</td>
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<tr>
<td>Automate assembly and distribution</td>
<td>Simplifies the customization of e-learning systems as different versions are created</td>
</tr>
<tr>
<td>Maintaining updated e-learning schedules</td>
<td>Centralized calendar for expiration dates of e-learning systems with limited shelf life</td>
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<tr>
<td>Conforms to standards</td>
<td>Ensure that established standards are used</td>
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<td>Simplifies migration to other LCMSs</td>
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</tbody>
</table>
Launch Preparation

- Use focus groups
  - Gather information about the requirements of the final product quickly
- Recruiting Customers
  - Consisting of the SMEs, the business representative, and a sample of e-learners
The E–Learning Statement of Work

- Restate project Instructional Design
  - Who is the primary e–learning audience?
  - What are the stated learning objectives?
  - What are the methods of assessing the course?

- Context Diagram for the E–Learning Product
  - Establishes the entities and system interaction
  - Who and what needs what and their contribution

- Internal Training Vs. External Marketing
  - Are specific OJT issues being addressed?
  - Is the e–learning designed to cultivate customer loyalty?
E-Learning Statement of Work

- IT Infrastructure Requirements
  - Can existing servers host the e-learning product?
  - Would an ISP or ASP be necessary?

- Performance Criteria
  - Number of anticipated learners

- Projected Hardware and Bandwidth Capability of Learners
  - How will users access the e-learning product
E-Learning Statement of Work

- Web Browser Compatibility Requirements
  - Limit to a single version or make product backward compatible
- Bookmarking, Scoring and Tracking Requirements
  - Necessary? Attractive conveniences?
- LMS Requirements
  - Does the company already have one? Is Sharable Content Object Reference Model (SCROM) standard needed?
E-Learning Statement of Work

- Accessibility Requirements
  - Will the e-learning product be used by the disabled?
- Requirements for ongoing support
  - Who will keep the content up-to-date?
  - What documentation is required?
  - What are the IT security requirements?
- Style Guide and Template
  - Who will provide the storyboards?
  - Are there specific branding requirements?
Specific Deliverables

- Number of Lesson Modules, Templates and HTML Pages Required:
  - Classify pages into categories based upon their degree of complexity (Graphics, media content, database queries)

- Media Content
  - Estimate typical media elements (Text, graphics, interactive sequences, audio, video)

- Product Testing Scripts
  - Determine the types of tests, (navigation, external links, database queries, user volume)

- Navigation Rules
  - Clicking through lessons (HTML) or navigation based on learner performance?
Overall Project Management Considerations

- **Roles and Responsibilities**
  - Who will approve products readiness, changes to specifications, and be included in the status reports?

- **Risk Management**
  - Determine which risks require preventative action
  - Develop steps to take should they occur

- **Relative Priorities of Time, Cost, Quality/Scope**
  - Delivery cycles juggled based on requirements, resource availability, cost constraints

- **Number of Delivery Cycles**
  - Delivery date 3 to 6 months from project launch
    - 2 or 3 interim cycle reviews, or
  - Reviews every 6 to 8 weeks (larger projects)
Conclusion

- The development of E-Learning Products require an expansion of the traditional Project Management model
- Successful development of an E-Learning Project necessitates that reviews be carried out at frequent intervals
- Review teams should consist of the Project Team, The SMEs, The Customer and the Learners