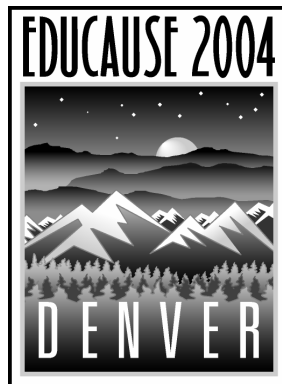

Seminar 06A

**Issues and Strategies in the
Design and Development of
Online Learning**

Lawrence C. Ragan



A seminar sponsored by EDUCAUSE
October 19, 2004

Issues and Strategies in the Design and Development of Online Learning

EDUCAUSE 2004

Denver

October 19, 2004

Lawrence C Ragan
Director of Instructional Design and Development,
Penn State's World Campus

Presenter Bio

Lawrence C. Ragan, Ph.D. is the Director of Instructional Design and Development for Distance Education and Penn State's World Campus initiative. Dr. Ragan is charged with directing the design and development of instructional materials for learners external to a Penn State campus. He is responsible for the integration of a wide range of electronic communications technologies into the instructional process including web-based systems, computer mediated communications, and interactive compressed video.

Dr. Ragan coordinates the design and delivery of faculty development seminars and training programs for Distance Education and the World Campus. Dr. Ragan has presented internationally on the topics of instructional design, multimedia development, faculty development issues and instructional design for distance education.

EDUCAUSE Workshop
October 19, 2004

8:30 Welcome and Introductions

- **Participant Introductions and Expectations Leveling**

8:45 Effective Habits (1-4)

9:15 Small Group Assignment (identify 2-3 barriers or issues related to these first four-habits, identify solutions, then report out).

9:45 Small Group Report Out

10:00 Break

10:15 Effective Habits (5-7)

11:00 Small Group Assignment (identify 2-3 barriers or issues related to these first four-habits, identify solutions, then report out).

11:20 Report Out

12:00 Summary Discussions and Wrap-up

ASSIGNMENT 1a: Issues Relates to Habits 1-4

Briefly identify barriers/issues/concerns in your institution relating to the habits of project management, instructional design, systems implementation, and faculty development. These issues will be shared with your small group.

ASSIGNMENT 1b: Issues Relates to Habits 1-4

Brainstorm potential solutions in your institution relating to barriers to the habits of project management, instructional design, systems implementation, and faculty development. These solutions will be shared with your small group.

ASSIGNMENT 2a: Issues Relates to Habits 5-7

Briefly identify barriers/issues/concerns in your institution relating to the habits of leadership, instructional technology and materials production. These issues will be shared with your small group.

ASSIGNMENT 2b: Issues Relates to Habits 5-7

Brainstorm potential solutions in your institution relating to barriers to the habits of leadership, instructional technology and materials production. These solutions will be shared with your small group.

Issues and Strategies in the Design and Development of Online Learning

Pre-conference Workshop
Lawrence C. Ragan

Program Goals

- Provide a framework for structuring the services for the design and development of online learning
- Share strategies and options for addressing the “Seven Habits” of effective design and development
- Identify potential issues and define solutions for the design and development of online learning

Program Agenda

- 8:30 **Welcome and Introductions**
Participant Introductions and Expectations Leveling
- 8:45 **Effective Habits (1-4)**
- 9:15 **Small Group Assignment** (identify 2-3 barriers or issues related to these first four -habits, identify solutions, then report out).
- 9:45 **Small Group Report Out**
- 10:00 **Break**
- 10:15 **Effective Habits (5-7)**
- 11:00 **Small Group Assignment** (identify 2-3 barriers or issues related to these first four -habits, identify solutions, then report out).
- 11:20 **Report Out**
- 12:00 **Summary Discussions and Wrap-up**

Introductions

- Larry Ragan
Director-Instructional Design &
Development Penn State-World Campus
- Participants . . .

WHO ARE YOU & WHAT DO YOU HOPE
TO GET FROM THE WORKSHOP?--
within small groups

Various Models for Online Courses

- Full-development ID&D service
- Faculty-lead with limited support staff
- Faculty-lead with no support staff
- Outsourcing
- Other . . .

Online Course Defined (for today)

- Online Course: an instructional event with
a significant portion or is totally delivered
in an online learning environment
- IS NOT: a syllabus or strictly content
materials delivery

Seven Habits (tasks)

- Project Management
- Instructional Design (with a Twist)
- System Implementation
- Faculty Training/Development
- Project Leadership
- Instructional Technology Integration
- Materials Production

Project Management (who's driving the bus?)

"The skills and tasks necessary to complete a project or phase of a project on time and within budget."

Project Management I

- Define the roles & responsibilities of team members
- Who has primary PM responsibility?
- Clearly articulate deadlines and milestones and track against those
- Consider PM at several levels (directors through designers)

Project Management II

- Identify systems/methods for PM (allow for flexibility/individuality)
- PM software for timeframe and process flow
- Time tracking for budget and resource management

Project Management III

- Develop contingency planning (what do we do when . . .)
- Establish framework for communications
 - Meeting schedules
 - Communications protocol
- Consider Process Mapping
 - Analysis of workflow
 - Gap analysis
- Review for process improvements

Instructional Design (with a Twist)

"The sequencing of the events of learning and the construction of the environment necessary for the students to achieve their learning objectives."

Instructional Design I

- Define common "context"- where is there design freedom and where is there not?
- Avoid course "cookie-cutter" model
- Capitalize on capability of technology
- Opportunity to enhance, expand, recreate learning environment
- "1-2-3 Degrees of change" model
- Faculty are not necessarily instructional designers (faculty may need ID support)
- Keep in mind impact on learner

Instructional Design II

- Technology-- limit number of plugins, downloads, hi-tech gadgets
- Pedagogy-- consider incremental steps for learners and faculty rather than total immersion
- Celebrate (and design) for the uniqueness of each course
- Students participate in elearning to learn, not because of technology
- Provide staff w/tools and training to complete tasks

System Implementation (putting the pieces together)

"The (administrative) steps and procedures necessary to open a course within the institutional system"

Implementation I

- Obviously will vary from institution to institution
- Course may be done within "resident" system or as "distance" model
- Define processes necessary to "open" a course online
- Start with the end date and backtrack
- Consider each and every aspect from student's perspective

Implementation II

- If dual mode institution consider integration processes
- Involve "stakeholders" who will be impacted by course offering
- Consider using existing systems rather than creating new
- Look for opportunity for process improvements
- Registration online
- Online credit card transaction, etc

Faculty Development (the key to success . . .)

"Support services and training necessary to provide faculty/instructors with skills required to be successful online"

Faculty Development I

- Critical Elements for Success = Skilled/committed Faculty
- Deal with administrative issues immediately (payment/copyright/release time etc)
- Variety of faculty development options
 - -One-on-one consulting
 - -Hands-on workshops
 - -Retreats/conferences
 - -Research seminars
 - -Access to online courses and resources

Faculty Development II

- Provide individual development plan
- Create plan for time and workflow
- “Meet them where they are”
- Identify barriers and address issues (may be time, money, skills)
- Must have adequate access to technology
- Instructional/developmental support
- Institutional commitment
- TIME!! (for all phases) Set REASONABLE EXPECTATIONS!!

Small Group Discussion I

Project Management
Instructional Design (with a Twist)
System Implementation
Faculty Training/Development

Project Leadership

"Leading/assisting an instructional design team in achieving their goal--a quality product that will contribute to a quality learning experience for the learners."

Types of Leadership

- Formal/Informal
- Collaborative/Dictator
- It is not right or wrong to use either of these types
- May use different types of leadership in different situations

Shared Leadership

- Shared leadership can be used for different components or sub-teams of a project.
- Increases the responsibility across the team
- Allows team to use the strengths of the team members.
- Will only work if the team is strong.

Responsibilities of the Leader

- Team communications
- Conflict resolution
- Challenge/stimulate team members
- Motivate
- Communicate regularly with the PM
- Work with the PM to resolve concerns
- Quality Assurance

Instructional Technology Integration

“A plan for using technology to
enhance the learning experience
for the learner.”

IT-At the Course Level

- The learner has to be the focus
 - How will this help the learner?
 - How will the learner be supported?
 - Can the technology be stretched?
 - Cost?
 - Version control?

IT-At the Institution Level

- Requires planning
- Requires training for faculty, tech team, CD team, learners, etc.
- Requires support
- Requires time
- Consider comfort zones

Materials Production

“The preparation of courses and/or resources for use by the learners and faculty.”

Materials Production I

- Copyright
- Multimedia
- Editing
- Layout
- Graphics
- Web-based publishing
- Paper-based publishing
- CD Rom production
- Databases

Materials Production II

- Juggling Timelines and Schedules
 - PM acts as traffic cop
 - What happens when there is a traffic jam?
 - What to do with a traffic jam
 - Communications

Materials Production III

- Who is responsible?
- Checklists and guidelines
- Communications
- Final say

Small Group Discussion II

Project Leadership
Instructional Technology Integration
Materials Production

Thank you!
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Notes posted on:
www.personal.psu.edu/lcr1

Appendix A:

REFLECTIONS FOR SEVEN HABITS

Reflections for Seven Habits

The following notes represent a collection of questions/concerns regarding each of the seven habits of highly effective instructional design units. These issues are not all-inclusive but will hopefully stimulate discussion on some of the more critical concerns for each function.

PROJECT MANAGEMENT:

- Consider your last curriculum development project. Was the project management system used on the project effective?
 - If so, what made it effective?
 - What steps can be put into place to improve the project management process?
 - Do staff possess the training and systems to support their project management needs?
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INSTRUCTIONAL DESIGN

- How has instructional design helped you to provide better services to learners?
 - How can you use instructional design more effectively?
 - What is the instructional design plan for your organization?
 - Can tools or resources be created that support the use of the instructional design plan by others within your institution?
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SYSTEM IMPLEMENTATION

- How does system implementation work at your institution?
 - What are the historical factors that influence the process of system implementation within your institution?
 - What steps can be taken to enhance or improve the system implementation process?
 - What are the barriers to system improvements?
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FACULTY DEVELOPMENT

- What are the faculty development needs within your distance learning or elearning program?
 - What types of activities are used to address these needs?
 - How is faculty development promoted at your institution?
 - How can you maximize the faculty development resources you have?
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PROJECT LEADERSHIP

- Within your own unit what types of leadership skills and competencies are necessary?
 - What type of training and staff development can be used to create these skills and competencies?
 - How can you maximize the team efficiency by utilizing the leadership strengths of various individuals?
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INSTRUCTIONAL TECHNOLOGY INTEGRATION

- What is the unit's philosophy regarding the integration of technology into the elearning program?
 - What is the baseline technology capacity of the audience for the distance learning program?
 - What technologies are you currently using?
 - What did you consider before you selected this technology?
 - If you were to select a new technology is there anything you would add to your list of considerations?
 - What process is used for introducing or changing the current technology platform?
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MATERIALS PRODUCTION

- Where and how are the materials for the course or elearning program developed?
 - Are the production staff in your unit used in a way that maximizes their skills?
 - Have your experienced traffic jams at the production stage?
 - What can you do to prevent these in the future?
 - What alternative methods can be used to reduce the development of materials cycle?
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Appendix B:

ROLES AND RESPONSIBILITIES FOR STAFF IN AN INSTRUCTIONAL DESIGN AND DEVELOPMENT UNIT

Roles and Responsibilities of Staff Involved in the Design, Development, and Delivery of Online Learning

Production Specialist

1. Provide program and course support
2. Obtain DE and (occasionally) WC permissions.
3. Provide financial and budget and payroll support, including IBIS forms and GREQ documents.
4. Provide travel support, including making reservations and processing payments
5. Order and proof Independent Learning course materials
6. Interact with Learner Support representatives to open new and revised courses, and to solve materials problems for on-going courses
7. Providing information to finalize activity sheets; attend implementation meetings
8. Initiate and follow up on routing copyright agreements for authors, using information provided by designers

Technical Typist

1. Word process instructional materials such as study guides, exams and keys, *Links* newsletter, resource notebooks, program guides, CDG, ACSDE, NCE) using both Macintosh and IBM computer programs
2. Provide back-up editing and proofreading to the IMDs
3. Generate HTML coding as needed, including providing support for DE Web site pages and generating course syllabi/promotional sites
4. Work on special projects (reports for Larry, ICDE publications)
5. Serve on various committees within DE (search committees for new employees, DE Web team, CQI meetings, peer review for Learner Support)
6. Work with faculty in course development (translating documents and files, meet with faculty author to finalize edits)
7. Transcribe audiotaped content
8. Input edits to World Campus Web pages
9. Provide back-up for reception/telephone activities (Rider II)
10. Resolve course development issues with Learner Support for existing courses

Senior Instructional Designer

1. Oversee the generation of copyright agreements and the procurement of permissions for all programs and courses
2. Supervise ID&D project management process, keeping projects on track:
3. Bring processes and projects back together that tend toward disorder
4. Ensure common look and feel across programs
5. Maintain “house style”

6. Oversee opening and closing of courses, including overseeing generation of activity sheets
7. Oversee resource allocation for projects
8. Hire and train new staff
9. Share information about project status with other DE staff outside ID&D
10. Develop course and unit budgets
11. Perform office administration tasks, including coordinating keys, equipment ordering, office space, phone accounts, cubicle building, ordering of chairs, etc.
12. Define new processes (transformation process, movement to MBS Direct bookstore)
13. Serve as “incubator” or “holding pen” for new projects prior to assignment (and sometimes in early phases after assignment) of lead designer
14. Resolve problems, including conflicts on teams
15. Represent unit on various administrative committees, including DE Operations, evaluation team, implementation team
16. Raise concerns of unit to people who can solve the problems
17. Coordinate curriculum issues related to instructional design (Anita for independent learning model, Rick for cohort model)
18. Faculty development, both individual and group
19. Aid program managers in developing and updating program guides
20. Advocate responsible application of technology (only where it adds value), including pushing for the adoption of the “simplest design model that will do the job.”

Instructional Designers

1. Define instructional design model for courses and program
2. Choose a model for course delivery, based on consultation with subject matter expert (SME)
3. Provide ongoing consultation with faculty on course design, assessment strategies, student interactions strategies, learning activities, and course evaluation strategies
4. Generate much of the transitional material needed for course
5. Generate public materials for the course (based on faculty input), such as the Welcome Pages
6. Develop Program Offices (based on faculty/department input)
7. Train faculty in use of technologies used in course
8. Create a media plot for course, outlining which media support which instructional objectives (media could include print, Web pages, graphics, animations, CD, etc.)
9. Provide up-front input on instructional design resources needed to help create course and program budgets
10. Create multimedia solutions to instructional challenges
11. Determine course and programmatic design and development timeline (target dates, deadlines, etc.)
12. Perform project management at course and program levels, communicating timelines, tasks, and key milestones to all design team members
13. Serve as central point of communication to project team

14. Serve as professional nagger to ensure timely generation of content
15. Serve as spokes people for World Campus to select outside groups, such as Faculty Innovators, CAC
16. Develop actual course materials; take “Word” documents and turn them into a course
17. Complete draft activity sheets for initial and repeat rollouts of courses
18. Gather information for Intellectual Property Agreements for individual courses and provide that information to Production Specialist
19. Coordinate obtaining copyright permissions needed for course
20. Track current trends/technologies in our field and bring those to bear on World Campus programs/projects
21. Attend design-level meetings, program-level meetings, staff meetings, implementation meetings
22. Provide demonstrations for visitors
23. Work on ad hoc projects as assigned (e.g., World Campus demo CD, Fac Dev 101, WC 101)
24. Provide ongoing monitoring of courses to ensure their continued quality and success
25. Serve as liaison between faculty/instructor and Learner Support
26. Capture revision needs so that courses can be improved over time
27. Identify flaws in current system so that the organization can improve its processes
28. Lead departmental review of courses
29. Control versions of courses – making sure materials sent to students match current offering
30. Alert program team to problems or changes that may affect individual course budgets and rollout schedules

Staff Assistant

1. Serve as receptionist for visitors, including greeting visitors and answering the telephone
2. Provide administrative (including keeping calendars, scheduling meetings, making travel arrangements)
3. Provide general office support, including sorting mail, making copies, ordering supplies, ordering equipment
4. Provide financial/budget support, including initiating payment for travel, reconciling purchasing card transactions, initiating financial documents, initiating payroll forms
5. Provide general design team support, including making photocopies, mailing materials
6. Procure permissions for the use of externally copyrighted materials in courses
7. Coordinate schedules of visitors and guests
8. Maintain ID&D library

Instructional Technologist and Web Specialist

1. Serve as technical resource for CGI programming, Java scripting, HTML development, and other Web-based technology development.
2. Establish and maintain course sites and communications tools

3. Investigate new technologies and report findings to the group.
4. Seek out innovative ways of solving instructional problems.
5. System administration of UNIX servers.
6. Troubleshoot server problems.
7. Coordinate computer services with other technical units.
8. Gather data and test equipment and software.
9. Assist in training faculty in use of technology
10. Provide minor on-site equipment support

Instructional Designer Specialist

Independent Learning

1. Serve as lead designer for courses, including course design and development activities and project management
2. Perform individual faculty development and oversee timely generation of content
3. Manage and maintain ongoing course delivery in assigned curriculum areas
4. Review course content for sound instructional design and organization, communication strategies, and distance learning pedagogy; edit and rewrite where necessary
5. Coordinate and review the course development tasks of the technical typists
6. Identify need for permissions and oversee permissions procurement process
7. Manage development of Web sites and integrate Web components into print courses
8. Initiate check of availability of textbooks and supporting material
9. Coordinate implementation of course with Learner Support
10. Initiate key documentation for project management milestones: author approvals, course approvals, intellectual property agreements, author payments, activity sheets
11. Oversee production of course syllabi/promotional sites for the Web for all courses that do not have a level 1 or higher Web site

Cohort Courses

1. Provide design assistance
2. Participate in faculty development
3. Review content of all textual instructional materials presented on the Web as well as in print, editing, generating transitional materials, and rewriting where necessary
4. Assure conformity to University style
5. Identify need for permissions
6. Design and produce Resource Notebook and other print materials (with technical typist) for initial and repeat rollouts

Miscellaneous

1. Develop faculty development resources such as the Course Development Guide
2. Provide general editing assistance whenever the need arises (for newsletters, internal reports, etc.)

Graphic Designer

1. Provide ongoing graphic design consultation and production for all design teams.
2. Develop web and print graphics including original graphics, banners, maps, graphs, photography and photo manipulation, and thumbnail icons.
3. On call for quick graphic needs within ID&D.
4. Miscellaneous department needs, such as office signage.
5. Overall World Campus web page and printed publications design.
6. Graphics resource person for other staff.

Director/Manager of ID&D and ETS

1. Oversee the design and development process for all potential and current World Campus and Distance Education programs, courses, and projects
2. Provide management and coordination between functional units for ID&D staff
3. Provide management and coordination between functional units for O&CE
4. Provide leadership in the conceptualization and implementation of ID&D strategies and systems for course design and development for WC
5. Manage unit resources and budget timelines for course delivery on time, on task, and on budget!
6. Interface with local, state, national, and international contacts for the university.
7. Perform management tasks for the operations of ID&D
8. Champion on-line education technology/pedagogy
9. Represent the university on national and international committees and projects
10. Plan and ensure resources for staff professional development
11. Oversee the emotional health of the unit
12. Conceptualize and design the instructional design system for all course production in distance education and the WC
13. Coordinate initiatives which benefit all Penn State students – resident and distance
14. Plan and administer faculty development programs for distance education faculty
15. Serve as spoken person for ID&D and related issues for internal and external contacts