A proposed solution to full Vista implementation at UNCW

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Executive Summary

The University of North Carolina Wilmington (UNCW) is a regional university located in southeastern North Carolina with an approximate student body size of 12,000 and 2,100 faculty, staff, and administrators. UNCW currently offers 73 bachelor's degree programs and 28 graduate programs. The university's mission is to provide a top-flight education to a diverse student body located in the coastal region of North Carolina while simultaneously enriching the economy, and quality of life in the region. As with most universities of this size, UNCW has an organization called the Information Technology Systems Division (ITSD) which manages all of the technology training, infrastructure, and troubleshooting for the campus.

One way universities are reaching non-traditional populations is by offering whole classes online or at least reduced face-to-face time with an online component. Founded in 1999, ITSD encompasses five departments which have varied missions. ITSD includes: Client Services (responsible for all university led technology training and end-user computer support), A/V Media Services (responsible for providing presentation equipment for all classrooms and special events), Computing Services (responsible for maintaining the data and computing infrastructure), Application Services (responsible for supporting university business applications), and Telecommunications (responsible for the university's communication server and network).

UNCW began offering Web-based classes in 2001. This fall semester (2006) has 98 courses being offered completely online and 57 courses which are campus-based with an additional online component. Overall there are 2,483 student seats in 145 courses which are using Learning Management System (LMS) in some capacity. The current LMS is called WebCT Campus Edition 4.1. About two years ago WebCT released a new LMS called WebCT Vista. Vista is a much more robust than Campus Edition in that it allows greater flexibility in course design as well as an enterprise solution to campus e-learning.

A company called Blackboard recently purchased WebCT and has stated they will not continue to provide updates for WebCT Campus Edition. Without updates WebCT Campus Edition will be obsolete. The ITSD administration purchased a license for Vista in January of 2006 and placed a deadline of Fall 2007 for all WebCT courses to be delivered using Vista. To reach this mandate it has been determined that a Vista training program should be implemented. The training program will include: an instructor-led for faculty members who are currently using WebCT Campus Edition, an instructor-led training for faculty members who have never taught using WebCT, and a FAQ Web site with commonly asked questions about the new Vista platform. The desired outcome for this training would be for all interested faculty to feel comfortable teaching online in the Vista environment.

Project Scope

Problem Statement

The University of North Carolina Wilmington currently uses WebCT Campus Edition 4.1 as the learning management system for the majority of courses delivered via the web. Currently the department of e-Learning is responsible for faculty and student WebCT training, as well as maintenance and troubleshooting. Over the next two years WebCT, which recently merged with Blackboard, announced they will stop providing support (updates) for Campus Edition 4.1. Without updates WebCT Campus Edition 4.1 is essentially worthless as any problems which arise will remain unsolved. The latest version of WebCT is called Vista 4. UNCW has recently purchased a license for Vista 4 and the administration has set a deadline for fall of 2007 for all online courses to be delivered in Vista. A plan needs to be developed to manage the training of faculty on this new learning management system.

Problem	Cause
UNCW has decided to stop using WebCT Campus Edition 4.1 in favor of a new version of WebCT called Vista.	WebCT has decided to stop supporting the current version of Campus Edition 4.1 so there would be not technical support. Vista also is a more flexible environment which allows for increased student interaction and an enterprise approach to online learning.

One solution for solving this problem is to offer faculty of the university training workshops on how to use the new course management system (Vista). The desired outcome of the training sessions would be for faculty to be comfortable teaching online and blended classes using Vista. This would allow the university to continue to offer the existing online classes, improve their quality, and increase the number of classes which are offered which have an online component.

Information Gathering

The e-Learning Graduate Assistants will gather the following information:

- Interview with UNCW WebCT administrator
    - To understand what technically must be done to move courses from CE to Vista
- Interview with current faculty using Campus Edition
    - To recognize how they prefer to attend workshops (online, in person, what times during the day)
- Interview technology coordinators for high volume Campus Edition consumers (School of Nursing, School of Education)
- Interview full-time Technology Assistance Center trainers who regularly deliver training workshops to faculty

Project Objectives

Deliverables/Delivery Strategies: To develop two training programs to address two different categories of faculty. One program will target faculty members who are currently using WebCT Campus Edition in their classes, while the second program will focus on those faculty members who have never taught using WebCT before. This project will produce the following deliverables:

- One instructor guide for delivering a workshop to faculty who are currently using WebCT Campus Edition
- One participant guides for delivering a workshop to faculty who are currently using WebCT Campus Edition
- One instructor guide for delivering a workshop to faculty who have never taught online before (web-based or web-enhanced)
- One participant guide for delivering a workshop to faculty who have never taught online before (web-based or web-enhanced)
- A Web site that has answers to frequently asked questions and pertinent instructions (job aids) in PDF format

Benefits: University faculty will understand how to teach using the new learning management system which in turn allows the university to continue to reach non-traditional students.

Budget: The cost should not exceed $4,000 which is provided by the department of Client Services.

Project Specifications

The participant guides will be divided up by the different tools within Vista for quick reference. The guide for faculty who have already taught using WebCT will use examples from Campus Edition, while faculty who will be using a LMS for the first time will receive a guide with more class-room based examples.

The instructor guides will contain all of the information in the participant guides as well as instructional strategies and tips for delivering the training. The training will be delivered by the WebCT Administrator, e-Learning Coordinator, and two e-Learning Graduate Assistants. The trainers will be encouraged to follow the structure in the instructor guides to ensure that all faculty members receive the same information regarding policies and instructional design for online courses.

The frequently asked questions (FAQs) content of the Web site will be created using questions which faculty members ask before, during, and after the workshop. There will also be instructions for students on how to login that faculty will be able to distribute via e-mail to their students.

Constraints

Constraints	Implications
The department of e-Learning has a small staff of two full time staff members and two part-time graduate assistants which translates into a limited amount of human resources for this project.	• Employees of the e-Learning office will be forced to assume multiple roles • Employees will have other projects to work on • The development work and printing will need to be done in-house to allow for a quicker turn-around time and quality control.
The goal of total conversion for fall of 2007 places tight time constraints on all parties	• Training needs to be designed and delivered as soon as possible. • Employees will need to focused and stay on task when designing the training • Faculty will need to be trained and begin working on their courses in the spring semester of 2007 to have the courses ready for fall 2007 (since most faculty will not be developing over the summer)
A limited amount of funding is available ($4,000) for designing and developing the training materials	• The development work will need to be done in-house as a large part of the budget will need to be spent on materials.

Alternative Analysis

Here are a few alternatives to this proposed analysis followed by constraints and problems associated with these solutions.

Alternative Analysis # 1	Constraints
The department of e-Learning could hire a contractor to come to campus and deliver all Vista training. This would solve the problem of staffing and development time.	• This solution could cost as much as $50,000 to complete work that is already in the job descriptions of current university employees. • This solution would disconnect the faculty from the office of e-Learning at UNCW who they will need to rely upon for support.

Alternative Analysis # 2	Constraints
The department of e-Learning could hire additional MIT students as graduate assistants to help with the design and development work. This would allow the work to be completed and implemented in a shorter amount of time.	• This would require an increase in budget and Vista training for the new employees.
Alternative Analysis # 3	Constraints
All training could be developed for exclusive online delivery in a Vista training shell to give faculty members an idea of what it feels like to be a student in an online class. This would allow training to be available 24/7 allowing the faculty to participate as their schedule permits.	• Faculty who have never taught using WebCT may be uncomfortable with this method. • There is little or no incentive for the faculty to participate and regularly contribute to this format.

Development Team and Position Descriptions

Project Manager (WebCT Administrator)

- Responsible for:
  - hiring and supervising the project team members
  - designing the scope, and work breakdown structure
  - working within the defined budget
  - identifying key milestones

Subject Matter Expert (WebCT Administrator, e-Learning Coordinator)

- Responsible for:
  - Providing expertise in designing and developing web-based and web-enhanced courses in Blackboard Vista

Instructional Design & Development Team (e-Learning Graduate Assistants 1 and 2)

- Responsible for:
  - conducting front-end analysis
  - using scope document to design training media
  - communicate with SME, and PM regarding project status and needs
  - designing instructor guides, and participant guides
  - designing FAQ Web site

Trainer (WebCT Administrator, e-Learning Coordinator, e-Learning Graduate Assistants 1 and 2)

- Responsible for:
  - delivering training using leader guide
  - learning material from SME

Awareness Coordinator

Responsible for:

- advertising workshops
- arranging for meetings with individual departments

External Evaluator

Responsible for:

- Summatively evaluating the training workshop as a whole after it has been fully implemented

Expense	*Amount*	*Total*
Personnel		
Project Manager	$0 (included in job)	$0
Subject Matter Experts (2)	$0 (included in job)	$0
Instructional Designers (2)	$0 (included in job)	$0
Trainers (4)	$0 (included in job)	$0
Awareness Coordinator	$0 (included in job)	$0
Personnel Total		**$0**
Materials		
Paper for instructor and participant guides	$40/ box for 2 boxes (5,000 pages in each box)	$80
Binders for guides	$4/ binder for 200 binders	$800
Printing services	$.03 per sheet for 5,400 sheets	$162
Hor'dourves for workshops	$50 per tray for 15 workshops	$750
Computers with Office and multimedia software	$0 (provided by department of e-Learning)	$0
Materials Total		**$1,792**
Locations		
e-Learning Computer Lab	$0 (provided by e-Learning)	$0
Locations Total		**$0**
Summative Evaluation		
Evaluation of instructor and participant guides	$0 (included in salary of SME)	$0
Evaluation of training	$2,000 (for external	$2,000

	evaluator)	
Evaluation Total		**$2,000**
Total Resource Estimate		**$3,792**

Formative Evaluation Procedure

- The project manager and instructional designer # 1 will conduct three individual one-on-one evaluations with faculty members.

- The project manager and instructional designer # 2 will conduct a small group evaluation with between 3 and 5 faculty members.

- The results of these evaluations will be shared and discussed with the SME to make any final changes before the worksheets are reproduced on a mass scale.

Summative Evaluation Procedure

- The instructor and participant guides will be evaluated on the basis of adult learning theory, course design, and stated objectives.

- The training will be evaluated by looking at the course design quality of faculty members who after taking the training decide to use Vista as a component of their face-to-face class or as the sole delivery method for an online class.

- An assessment tool will also be given to a random sampling of faculty members to measure their perceived value of the training program.

Risk Management

Risk # 1 Scheduling Conflict

Definition:

Condition: A number of faculty members are teaching class at the same time that all of the trainings are being offered.

Consequence: Those faculty members with scheduling conflicts will be unable to attend the training sessions.

Probability:

Probability	Medium	High	Extreme
	Low	Medium	High
	Minimal	Low	Medium
	Severity of Consequence		

Response: To minimize the effects of this risk with faculty schedules, the following actions will be taken:

- Workshops will be offered regularly during both the morning and afternoon.
- To reach part-time faculty who may work elsewhere during regular business hours, a few periodic night workshops will be scheduled.

Risk # 2 Technology Dependence

Definition:

Condition: The training sessions rely on the internet being available, the computers working properly, and the WebCT server running properly.

Consequence: If the computers in e-Learning Lab are not running properly then faculty members will be unable to successfully complete the hands-on portion of the workshop.

Probability:

Probability	Medium	High	Extreme
	Low	Medium	High
	Minimal	Low	Medium
	Severity of Consequence		

Response: To minimize the risk of technology dependence two weeks of float time will be incorporated into the schedule allowing training to be re-scheduled as necessary.

Risk # 3 Attendance

Definition:

Condition: Faculty member attendance may be low.

Consequence: If the faculty members do not attend the training sessions they will not know how to use Vista and will not be inclined to use it in their classes.

Probability:

Probability	Medium	High	Extreme
	Low	Medium	High
	Minimal	Low	Medium
	Severity of Consequence		

Response: To minimize the risk of low attendance, the awareness coordinator will write announcements about the training in newsletters, send mass e-mails out to faculty members on the e-Learning listserv, speak at the university-wide department chair's meetings, and contact technology liaisons in high volume departments or schools.

Risk # 4 Quality of Instruction

Definition:

Condition: The training guides may not be of high enough quality to meet the objectives of the workshops.

Consequence: Faculty members may not be motivated to learn and attitudes could become less than positive. These factors could affect attendance and participation.

Probability:

Probability	Medium	High	Extreme
	Low	Medium	High
	Minimal	Low	Medium
	Severity of Consequence		

Response: To minimize the risk of designing and developing low quality instruction, all members of the e-Learning department should be involved in the formative evaluation process.

Project Work

Deliverables:

The product deliverables will include:

- Two participant guides that will be organized by the different tools within Vista for quick reference. The guide for faculty who have already taught using WebCT will use examples from Campus Edition, while faculty who will be using a LMS for the first time will receive a guide with classroom based examples.

- Two instructor guides that will contain all of the information in the participant guide as well as instructional strategies and tips for delivering the training.

- An FAQ section with answers to commonly asked faculty Vista questions.

Major Milestones:

Milestones	Estimated Completion Date
Complete draft of instructor and participant guide for faculty who have never used WebCT before	**March 8, 2007**
Compete draft of instructor and participant guide for faculty who have used WebCT before	**March 15, 2007**
Complete Formative Evaluation	**March 27, 2007**
Revise and Finalize Materials	**March 30, 2007**
Begin Delivering Training	**March 30, 2007**
Complete Summative Evaluation	**September 19, 2007**

Communication Plan:

Meetings have been scheduled at various major milestones to address issues or concerns as they arise. The team members will be expected to be in regular contact with the project manager giving bi-weekly updates on their progress. Since all team members work in the same office, it will be easy for them to meet briefly with the project manager if necessary. Otherwise a majority of the communication will take place via e-mail. The project manager will be solely responsible for revision of the schedule and will express any necessary changes as soon as possible.

Work Breakdown Structure:

1.0 Assess Needs to Identify Goals
-Already completed prior to the start of the project

2.0 Conduct Project Kick-off meeting

3.0 Conduct Instructional Analysis (with SME)
- 3.1 Classify Learning Goals (Intellectual, Psychomotor, or Attitudinal)
- 3.2 Describe the Standard Performance of the Goal by the Learner
  - 3.2.1 Describe Step-by-Step what the Learner is doing when Performing the Intended Goal
  - 3.2.2 Identify the Major Steps in the Process
  - 3.2.3 Identify Major Sub-Steps in the Process
  - 3.2.4 Identify Sub-Ordinate Skills Needed for each Sub-Step
  - 3.2.5 Identify Entry Behaviors of Learners

4.0 Analyze Learners
- 4.1 Identify Learner's Target Population
  - 4.1.1 Identify Population Age
  - 4.1.2 Identify Population Gender
  - 4.1.3 Identify Population Teaching Experience
- 4.2 Learner Information Gathering
  - 4.2.1 Identify Learner's Prior Knowledge of Subject
  - 4.2.2 Identify Learner's Motivation
  - 4.2.3 Identify Learner's Entry Behaviors
  - 4.2.4 Identify Learner's Ability Levels
- 4.3 Draw Conclusions from Learner Data

5.0 Analyze Learning Environment
- 5.1 Collect Data on Performance Environment
  - 5.1.1 Observe Learners in Performance Environment
  - 5.1.2 Describe Physical and Organizational Environment where skills will be used
  - 5.1.3 List factors which may prevent or facilitate the learner's use of skills
- 5.2 Analyze Learning Content
  - 5.2.1 Collect Data Regarding Learning Environment
- 5.3 Identify the Learning Environment Gap (what is vs. what should be)
  - 5.3.1 Identify Site Compatibility with Instructional Requirements
  - 5.3.2 Identify Ability of Site to Simulate Workplace
  - 5.3.3 Identify Adaptility for Various Delivery Methods
  - 5.3.4 Identify Site Constraints affecting Design and Delivery

6.0 Write Performance Objectives
- 6.1 Review Goal Statement

6.1.1 Edit Goal Statement to reflect Learning Environment Context
6.2 Write Terminal Objective to reflect Learning Environment Context
6.3 Write an Objective for each Step in Goal Analysis for which there are no Subordinate Steps
6.4 Write an Objective for each Grouping of Subordinate Steps Under a Major Step of the Goal Analysis

7.0 Develop Assessment Instruments

7.1 Design Criterion-Referenced Tests
7.1.1 Define Mastery for Each Objective
7.1.2 Write Test Items
7.1.2.1 Review Test Items to ensure they Match the Prescribed Behavior, Conditions Identified in the Context Analysis, and Include Clear Directions
7.2 Write Instructions for Learners
7.3 Develop the Instrument
7.3.1 Identify Elements to be Evaluated
7.3.2 Sequence the Elements
7.3.3 Determine Objective Judgment for the Evaluation
7.3.4 Determine How to Score Evaluation
7.4 Identify Test Procedures
7.5 Evaluate Test
7.6 Administer to Test to Learner outside Target Group
7.7 Recognize Problems with Directions and Test Items

8.0 Develop Instructional Strategies

8.1 Choose an Instructional Delivery System
8.1.1 Review Learner Characteristics, Learning and Performance Context, Objectives, and Assessment Requirements
8.1.2 Identify the Learning Components that will be used in the Instruction
8.1.3 Select appropriate Media and Materials by Cost, Convenience, and Practicality
8.1.4 Develop a Delivery System which best matches previous decisions
8.2 Select Appropriate Sequencing of Instruction by grouping similar content
8.3 Identify instructor's role in Pre-Instructional Activities, Assessment and Follow-Through Activities
8.4 Review Strategy to Ensure Activities and Media Selection Match Content

9.0 Develop and Select Instructional Materials

9.1 Review the Instructional Strategy for each Objective
9.2 Identify the Availability of any Existing Instructional Material
9.3 Determine New Materials to be Designed
9.4 Prepare Instructional Materials
9.4.1 Select Vista Tools to Demonstrate
9.4.2 Select Instructional Design Techniques to Demonstrate
9.4.3 Take Screen-Shots of necessary Vista screens and tools

9.4.4 Meet with SME to discuss ways selected Vista tools are used and best instructional design practices
9.4.5 Develop Participant Guide for Novice WebCT Users
9.4.5.1 Review Individual Chunk Content
9.4.5.2 Write Necessary Text
9.4.5.3 Insert Screenshots
9.4.5.4 Organize Chunks
9.4.6 Develop Instructor Guide for Novice WebCT Users
9.4.6.1 Review Content Chunks
9.4.6.2 Write Instructional Content
9.4.6.3 Write Necessary Text
9.4.6.4 Insert Screenshots
9.4.6.5 Organize Chunks
9.4.7 Develop Participant Guide for Experienced WebCT Users
9.4.7.1 Review Individual Chunk Content
9.4.7.2 Write Necessary Text
9.4.7.3 Insert Screenshots
9.4.7.4 Organize Chunks
9.4.8 Develop Instructor Guide for Experienced WebCT Users
9.4.8.1 Review Content Chunks
9.4.8.2 Write Instructional Content
9.4.8.3 Write Necessary Text
9.4.8.4 Insert Screenshots
9.4.8.5 Organize Chunks
9.4.9 Develop FAQ Webpage
9.4.9.1 Select Most Commonly Asked Questions
9.4.9.2 Design Page Layout
9.4.9.3 Select Color Scheme
9.4.9.4 Insert tables
9.4.9.5 Paste Text

9.5 Complete Rough Draft of all Materials
9.6 Revise Materials

10.0 Design and Conduct Formative Evaluation

10.1 Review Instructional Materials with SME
10.2 Conduct One-to-One Evaluation
10.2.1 Select 5 Learner's From Target Population
10.2.2 Conduct Training
10.2.2.1 Record Learner Observations
10.2.2.2 Review Pre and Post-Test Data
10.2.2.2 Summarize Finding
10.3 Revise Materials
10.4 Conduct Small Group Evaluation
10.4.1 Select 10 Learners from Target Population
10.4.2 Conduct Training

10.4.2.1 Record Learner Observations
10.4.2.2 Review Pre and Post-Test Data
10.4.2.3 Summarize Findings
10.5 Revise Materials
10.6 Finalize Materials
10.6.1 Receive SME Sign-Off on all Materials
10.7 Print Materials and Upload Web page to the server

11.0 Implement Training

11.1 Plan Training Dates and times According to Training Room Availability and taking into consideration the varied schedules of faculty members
11.2 Promote the Training Sessions through newsletters, websites, and mass e-mails to faculty
11.3 Deliver Training to Faculty Members

12.0 Design and Conduct Summative Evaluation

12.1 Select an Uninvolved Party to Conduct Summative Evaluation
12.2 Design Summative Evaluation
12.3 Administer Summative Evaluation
12.4 Compile and Analyze Results
12.5 Write Report of Findings

Network Planning and Scheduling

Network diagram showing durations and earliest start and finish

- Please see Microsoft Project file

Network diagram showing durations and latest start and finish times

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Schedule showing slack

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Critical Path

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Revised Schedule

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