Preparing Faculty for a
Successful Online Teaching Experience

A Needs Assessment for the School of
Continuing and Professional Studies
at the University of Virginia

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Executive Summary

In this report, we describe a Needs Assessment undertaken for the University of Virginia's School of Continuing and Professional Studies (SCPS), to help SCPS improve the support processes used to prepare faculty to design and deliver online courses. The design team's goal was to seek an understanding of the following:

- The current support services and processes used by SCPS to prepare faculty to deliver effective online courses and how those processes impact SCPS staff, faculty, and students
- The technical and administrative support provided to faculty and students
- The knowledge or skills faculty need to prepare and deliver effective online courses
- Faculty and student perceptions of faculty preparation and delivery of online courses
- Student perceptions of orientation materials that help prepare them for the course

To gather data, the design team conducted interviews with SCPS staff, faculty, and students; visited the SCPS facilities; reviewed the Blackboard course management software; and reviewed materials to gain an overview of the Blackboard support services available to users. The following issues emerged in the environmental assessment and served as the focus of the needs analysis:

- Survey data and a literature review of distance education best practices indicates that faculty require assistance in the following specific areas: repurposing existing course materials, adjusting teaching strategies to focus on applying student-centered learning theories and integrating interactive components.
- Requests for SCPS support services for faculty usually are at their highest just prior to the beginning of a new semester. At present, SCPS staff lacks the staff needed to support faculty preparing to deliver online courses.
- Delays in registration result in delays in students' successful activation of a Blackboard account.

Based on the data gathered in this needs assessment and our evaluation of the potential solutions to address the needs listed above, we offer the following goal statement that describes what SCPS faculty should be able to do after our suggested solutions have been implemented:

Faculty members have ready access to resources reflecting best practices in distance education. To deliver a successful online course in Blackboard, SCPS faculty will repurpose existing course materials, adjust their teaching strategies to apply student-centered practices, and integrate interactive components into their courses.

Finally, we make the following recommendations for how SCPS can help faculty achieve this goal, including:

- Faculty complete online surveys for SCPS before receiving course approval so that SCPS can gather more complete data about current faculty skill levels.
- Faculty members attend a required in-person orientation on course design and development led by current SCPS staff members. In addition, SCPS coordinates with the Instructional Technology Group located in the UVA Teaching Resource Center to offer an online short course on Course Tools and Design.
- SCPS establishes a list of experienced faculty Blackboard users available to mentor new faculty.
- SCPS establishes a general online FAQ for faculty members to facilitate exchange of successful practices by working with experienced faculty Blackboard users.

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Environmental Assessment

Purpose

The purpose of the environmental assessment is to evaluate the factors affecting the institutional, physical, and social environments of the School of Continuing and Professional Studies (SCPS) in providing support to faculty preparing to teach an online course. The information provided here is the result of interviews and surveys conducted with administrators and staff of SCPS, faculty and student users of Blackboard, and the WebLearn administrators in the UVA School of Nursing. Additional information was obtained from reviews of printed and web materials, and a review of the Blackboard software and user manual. Blackboard is the course management system adopted by SCPS used to deliver online courses.

Methods for Gathering Data

The methods used to gather data for this report included interviews, surveys, visits to the SCPS facilities, and reviews of printed and online materials.

I. Interviews and Surveys

In order to learn more about the features of Blackboard and the necessary skills for using the course management system, the team interviewed key stakeholders: SCPS staff, including the instructional designer and director of Educational Technologies Center, faculty using Blackboard (experienced and inexperienced), current and former students enrolled in Blackboard courses delivered by SCPS, and WebLearn administrators in the UVA School of Nursing who are responsible for providing administrative and technical support for Blackboard. In addition, the design team used surveys to assess student and faculty attitudes and perceptions about faculty preparation for online courses.

II. Observation of Blackboard Environment

To explore the Blackboard online environment, all team members obtained temporary Blackboard accounts and reviewed course shell structure and online training modules developed by Dr. Scheer for instructors and students. Dr. Scheer also granted the team access to the inactive Blackboard course of a UVA faculty member. The design team also examined instructor training modules written by SCPS describing Blackboard course management and instructional design features and reviewed student training modules describing the main functions of Blackboard.

III. Reviews of Blackboard Resources

The team reviewed various sources of documentation describing Blackboard usability features and user guidelines, including:

- The Blackboard website describing software features, uses and pricing 5
- Usability test of the Blackboard manual provided to UVA students via the SCPS Virginia Distance Education website
- Review of SCPS websites and Blackboard information links (student manual for Blackboard, Blackboard, email policy documents, online training modules, WebLearn interface)
- Review of SCPS print materials (brochures, catalog, timeline for course development)
- Blackboard user orientation websites provided by other universities
- Best practices documentation for online learning course development and teaching methods

IV. Literature Review

The design team conducted a literature review of best practices in distance education with a special focus on needed skills for successful online course preparation and delivery, course management characteristics and criteria for student success, including a review of guidelines for administrators and program directors assisting faculty in online course preparation.

1   **Institutional Environment**

A. Introduction

To document the institutional environment, the design team visited SCPS and interviewed Educational Technologies Center staff, surveyed Blackboard administrators (the WebLearn administrators at the School of Nursing), and reviewed online materials describing the services of these organizations.

The Educational Technologies Center located within SCPS provides support to faculty delivering either online courses or blended courses through SCPS. Dr. Scheer is the primary contact for the 40-50 faculty members teaching "blended" or online courses. Currently, SCPS supports 878 students. In discussions with Dr. Stephanie Scheer and Mr. John Payne, the design team learned about the current methods of operation and the history of the support processes used to assist faculty in setting up a Blackboard course.

In addition, the design team surveyed the WebLearn administrators to learn about the administrative and technical support procedures necessary to support the successful creation, implementation and delivery of online/blended courses and maintain the Blackboard course management system.

B. School of Continuing and Professional Studies (SCPS)

SCPS is one of eleven schools at the University of Virginia offering continuing education programs and professional enrichment opportunities at seven regional centers throughout the state of Virginia. SCPS is located in Zehmer Hall on the main campus of the University. Students may earn undergraduate and graduate degrees from the University of Virginia by participating in off-grounds degree programs coordinated and delivered by SCPS. University degrees are granted by the various academic schools affiliated with SCPS. Currently, SCPS may confer the Bachelor's degree in Interdisciplinary Studies (BIS). In addition, students may earn credit for professional re-licensure and certificates in eighteen areas of study.

The Educational Technologies Center (ETC), a component of SCPS, supports seven regional satellite centers that oversee the delivery of UVA academic programs that are distributed to learners throughout Virginia. ETC provides the following services:

- Distance learning
- Instructional design
- Instructor support for the use of the Blackboard on-line course management system
- Satellite uplinks
- Digital videoconferencing
- Network management
- Systems integration
- PC support
- Help desk

During the 2003-2004 academic year, SCPS offered nineteen "blended" courses, consisting of a mix of both face-to-face interaction via video, on-grounds classes and began online course delivery via Blackboard. SCPS currently supports forty-six courses and jointly shares a user license for Blackboard with the UVA School of Nursing.

Both Dr. Scheer and Mr. Payne are subject matter experts in the areas of instructional design and distance learning and have extensive experience and knowledge of online learning systems and successful teaching techniques for such environments. They serve as the main contacts for faculty requesting a Blackboard course shell.

Conversations with Dr. Scheer and Mr. Payne revealed that the growing number of online courses places an increasing demand on their time and ability to support faculty. This is true especially for Dr. Scheer, who spends a large part of her time in assisting faculty with organizing their course content. Mr. Payne devotes most of his time to the overall administration of the Educational Technologies Center.

The following chart represents a breakdown of SCPS staff roles and responsibilities. As noted earlier, Mr. Payne serves as the director of the ETC and Dr. Sheer as Instructional Designer.

University of Virginia
School of Continuing and Professional Studies
Educational Technologies

Dean
FA392
Sondra Stallard

Associate Dean
FA085
Cynthia Reed

Director
FP706
John Payne

And. & Prog Specialist III
C2339
Cathy Willis

Information Technician Specialist III
C2125
Robert Hutchison

Information Tech Spec. I
C0952
Loretta Morgan

Information Technology Specialist I
C2745

Adm, Prog. Specialist III
C1253
Susan Folger

Informational Designer
FP096
Stephanie Scheer

Information Technology Specialist I
C2734

Digital Classroom Specialist
C0301

Instructional Design Coordinator
C2189
Irene Brenneman

Information Technology Specialist I
C0441

Instructional Technologist
C0645

C. WebLearn Administration at the UVA School of Nursing

WebLearn is the administrative portal for Web-based learning and distance education for the School of Continuing and Professional Studies and the School of Nursing. Faculty and students access the Blackboard software for SCPS courses from the WebLearn home page.

In an effort to minimize the licensing and administrative costs of implementing and maintaining Blackboard, SCPS and the UVA School of Nursing have formed a partnership and jointly share a Blackboard license. As part of the license agreement, the School of Nursing maintains the Blackboard servers and provides technical Blackboard support for SCPS faculty and students. The administrators of Blackboard are also referred to as the WebLearn administrators. Dr. Stephanie Scheer and Mr. John Payne, serve as liaisons between faculty and the WebLearn administrators.

D. Challenges and Opportunities: Physical Location

In order to support faculty SCPS serves as the first point of contact, identifying any potential problems with the course, collecting information, and offering instructional design expertise and resources. Another reason for serving as the intermediary is to reduce the workload of the WebLearn Administrators who also support the School of Nursing.

Interviews and surveys of WebLearn administrators and SCPS staff revealed that the current structure of the UVA-wide student registration system does not allow student enrollment information to be integrated directly with the Blackboard interface. To facilitate Blackboard registration and minimize technical problems with the current course registration system, all students and faculty are now required to obtain a UVA email address before being able to enroll in a Blackboard course.

The physical separation between the two schools does place some limitation on direct communication between SCPS and WebLearn administrators.

E. Blackboard Support Services

SCPS has implemented a multi-level support system to assist faculty with the preparation, planning, development and design of their courses for an online setting. The various components of the SCPS support for Blackboard course development are as follows:

1. Blackboard Orientation: The purpose of the Blackboard orientation offered by Dr. Scheer is to provide faculty with an overview of features as well as information about online course preparation. The typical length of an overview session is about an hour and is available and offered upon request. The orientation includes the following topics, discussion, and demonstrations:

   - **Overview of the Blackboard/Video Learning Platform** – An overview of the Blackboard/video delivery systems and tools for faculty and students, including the names of the features, their location in the interface, and uses.

   - **Overview of Blackboard Administrative Tools** – Includes a brief demonstration of the administrative tools available from the Control Panel (i.e., materials, references, external links, class statistics, and digital drop box).

   - **Content Delivery** – Discussion of how existing course materials may be adapted to the online environment.

   - **Syllabus Structure** – The syllabus should be well-developed and state clear expectations for students. It can serve as a well-defined plan for the course and is often viewed by students as a contract.

   - **Interactivity and Lecture Format** – Building flexible and varied activities and lectures that encourage interaction between students. For example, faculty may use the Blackboard quiz feature to quiz students on the contents of the syllabus.

   - **Student Expectations and Distance Education Protocol** – Establishing clear and appropriate guidelines for distance learning is stressed, including rules and strategies for appropriate interaction.

   - **Focus on Distance Learning** – Consider student learning as the focus and how they might modify and adapt any materials and teaching strategies to that end.

   - **Pedagogy** – Pedagogical topics include discussion of effective Blackboard interaction and grouping features and their purposes, access to relevant materials, and effective ways of processing and learning content.

   - **Facilitation of Orientation Sessions:** Support services include the facilitation of orientation sessions at local and distant sites.

   - **Ongoing Support**: Faculty may request one-on-one sessions with SCPS for completion of online course development.

2. One-on-One Consultation: One-on-one Blackboard consultation sessions are available to all faculty members who make a request. These sessions

may be used as an extension of the orientation or as a first-time information session about the use of Blackboard.
The one-on-one sessions cover the following topics:

- **Syllabus Development** – A clear and detailed syllabus provides a road map for course development and planning as well as clearly established expectations for students.
- **Anticipating Students' Expectations** – Faculty clearly communicate course expectations.
- **Audience** – Faculty are encouraged to get to know their students through engaging activities to prevent complaints or surprises.
- **Integration of Grouping and Interactive Strategies** – Faculty are encouraged to plan and integrate an introductory activity that focuses on course expectations and student responsibilities.
- **Course Objective and Design Elements** – Dr. Scheer uses a worksheet to ensure all aspects of the course have been covered by faculty planning.
- **Learning Theories** – Dr. Scheer emphasizes learning and teaching theories with a focus on 'student oriented teaching practices', although she does not advocate specific learning theories to faculty in order to be sensitive to their background and experiences.

3. Follow-up Consultation: Follow-up sessions are available to faculty on a case-by-case basis via phone or email.

4. Class Observation: The SCPS staff is available to observe classes in session to help faculty identify student needs. The staff uses this information to provide support for the implementation of the learning management system.

5. Online Resources: The Virginia Distance Education website (http://www.scps.virginia.edu/vdl/) offered by the SCPS provides faculty with teaching guidelines and instructions for the course shell activation process. (Detailed descriptions of resources are included in the Social Environment section of the report).

6. Help Desk: The help desk is for SCPS faculty and students who need general technical support, but does not cover Blackboard technical support.

7. Ongoing Informal Support: Faculty can contact SCPS staff for support via phone or email, or in person.

F. Challenges and Opportunities: Support Services

The extent to which these services are accessed and requested by faculty varies, but requests for support are primarily within the first weeks of a semester or the beginning of a new course. While the Blackboard orientation is available to all faculty members, attendance at the orientation is not mandatory and approximately half choose to attend. Faculty increasingly request one-on-one consultations with Dr. Scheer, as they prefer to address specific issues with Blackboard and course design and development.
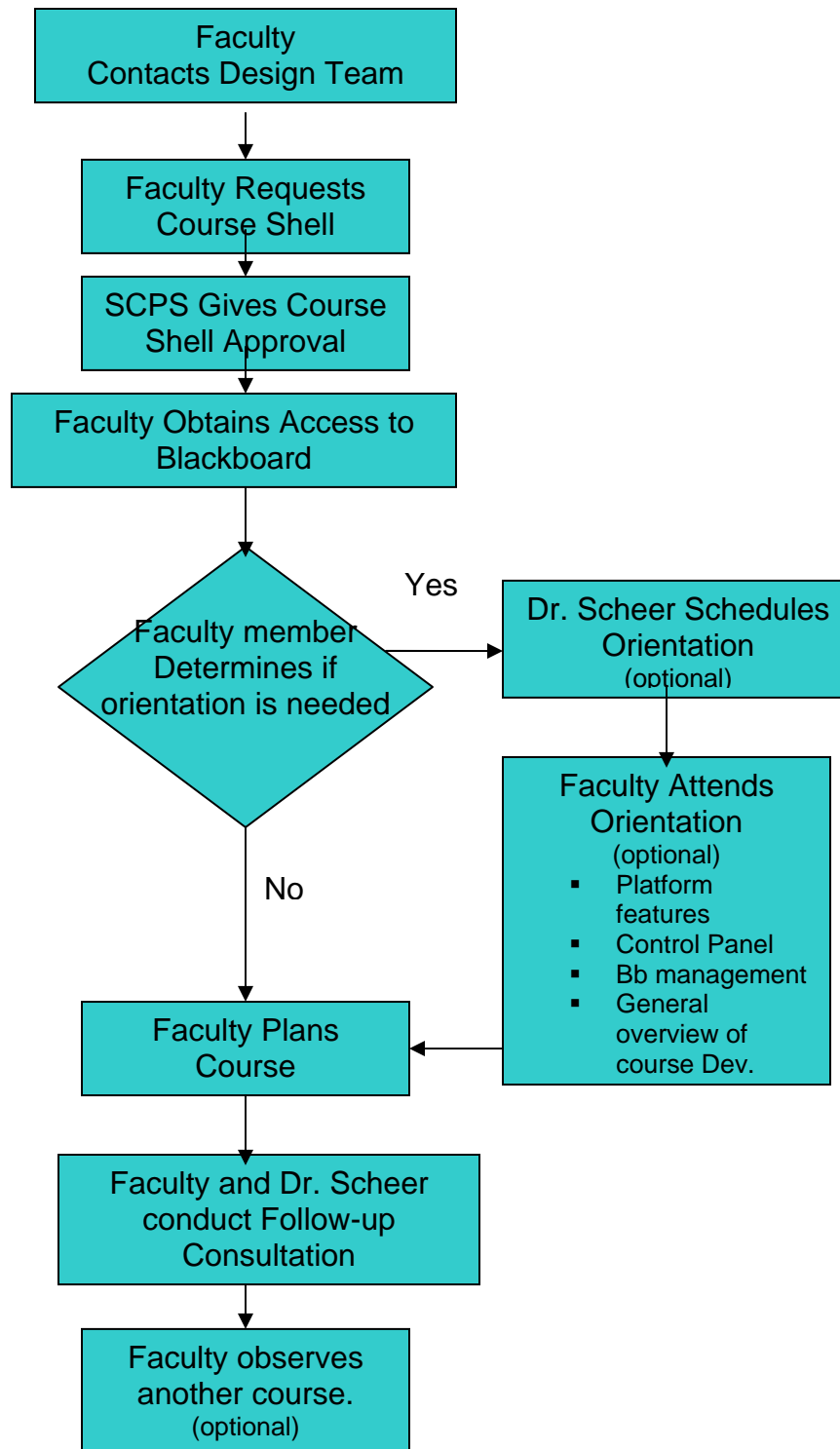
G. Course Development Processes

Before a course shell can be created and faculty can obtain access to Blackboard, SCPS must review the information provided by the faculty, ensuring that the required information is forwarded to the WebLearn administrators.

This is a summary of the steps needed for Blackboard access and activation for faculty:

1.	SCPS approves course

2.	SCPS provides
	   a. Blackboard orientation/overview
	   b. Course content development
	  (min. of one semester)

3.	Faculty obtain valid UVA email account by registering with SCPS
4.	When course is approved, faculty initiate request for official Blackboard course shell from SCPS staff (requested one week at a minimum prior to beginning of class)
5.	SCPS reviews course shell request for missing information (i.e. course description, course mnemonic, schedule number, instructor name, instructor's UVA computing and numeric ID, and date for Blackboard course student access)
6.	SCPS initiates course request to WebLearn administrators in the School of Nursing
7.	WebLearn administrator creates course shell in Blackboard and notifies the Educational Technologies Center and instructor via email. Course is now ready to be populated with course content.
8.	Faculty informs students of UVA email requirement for Blackboard access
9.	Faculty verifies that all students are enrolled in Blackboard course using the User Management function in Blackboard
10.	Faculty contact enrolled students with instructions for accessing Blackboard, the default user name and password and the date on which Blackboard course may be accessed (ideally completed prior to the first class)
Approximate required time period: one semester prior to first day of class	

Flowchart of Faculty Course Design and Development Process Used by SCPS

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┌─────────────────────────┐
│       Faculty           │
│ Contacts Design Team    │
└─────────────────────────┘
            │
            ▼
┌─────────────────────────┐
│   Faculty Requests      │
│    Course Shell         │
└─────────────────────────┘
            │
            ▼
┌─────────────────────────┐
│  SCPS Gives Course      │
│   Shell Approval        │
└─────────────────────────┘
            │
            ▼
┌─────────────────────────┐
│ Faculty Obtains Access  │
│    to Blackboard        │
└─────────────────────────┘
            │
            ▼
        ◇ Faculty member ◇        Yes      ┌──────────────────────┐
        ◇ Determines if  ◇ ──────────────▶ │ Dr. Scheer Schedules │
        ◇ orientation is ◇                 │     Orientation      │
        ◇   needed       ◇                 │      (optional)      │
                                           └──────────────────────┘
            │ No                                      │
            │                                         ▼
            │                           ┌──────────────────────────┐
            │                           │   Faculty Attends        │
            │                           │    Orientation           │
            │                           │     (optional)           │
            │                           │   ▪ Platform features    │
            │                           │   ▪ Control Panel        │
            │                           │   ▪ Bb management        │
            │                           │   ▪ General overview of  │
            │                           │     course Dev.          │
            ▼                           └──────────────────────────┘
┌─────────────────────────┐                         │
│    Faculty Plans        │ ◀───────────────────────┘
│      Course             │
└─────────────────────────┘
            │
            ▼
┌─────────────────────────┐
│ Faculty and Dr. Scheer  │
│  conduct Follow-up      │
│   Consultation          │
└─────────────────────────┘
            │
            ▼
┌─────────────────────────┐
│ Faculty observes        │
│  another course.        │
│   (optional)            │
└─────────────────────────┘
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2　*Physical Environment*

A. Introduction

The purpose of an assessment of the physical environment is to help the design team assess the attributes, tools, resources, facilities, and conditions that may enhance or hinder performance

The assessment of the physical environment has been divided into the following areas:

- Physical location and description of SCPS

- Review of Blackboard.

- Printed and electronic resources.

A typical SCPS course is taught as a blended or online course. In a blended course, faculty and students interact in a face- to-face as well as an online environment. In a course delivered online, students and faculty interact solely in an online/virtual setting. In both cases the primary interaction occurs online. Students access Blackboard to download materials, submit their assignments, engage in discussions, and review course relevant materials. It is the responsibility of the faculty member to create and design an online environment that is interesting, engaging, and conducive to learning.

B. Physical Location: SCPS

The University Center and primary building housing SCPS at the University of Virginia is Zehmer Hall, located at 104 Midmont Lane – PO Box 4000764 off of Alderman Road in Charlottesville, Virginia. The University Center serves as the main support to all local and regional center staff, faculty, and students enrolled in SCPS courses.

Zehmer Hall – main building at the SCPS University Center
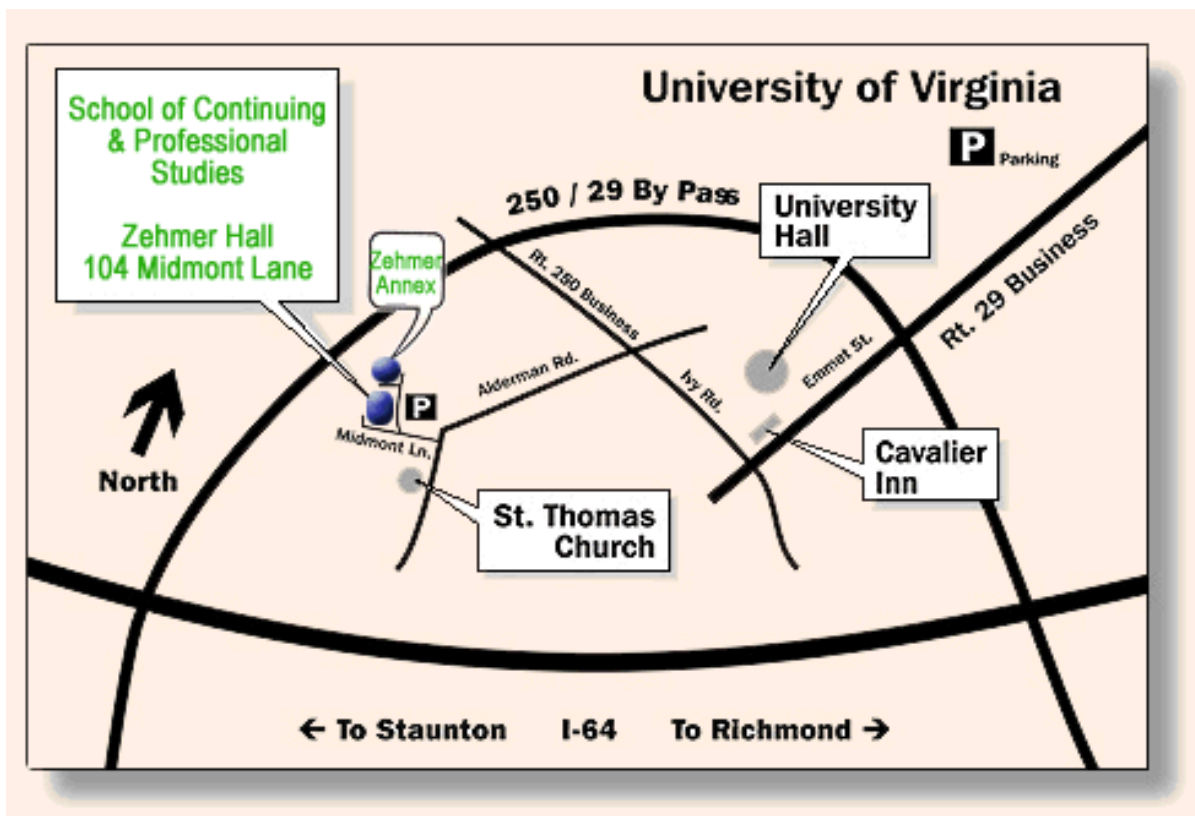
Location of the School of Continuing and Professional Studies at the University of Virginia

The following facilities and tools support distance education at the University

Center:

- Five classrooms in Zehmer Hall are organized as conference rooms and each has a long conference table with comfortable chairs.
- Other rooms are set up for two-way video conferencing.
- A separate room for the server used to connect the remote sites located in seven different locations throughout the state of Virginia.
- A small television production studio used for satellite uplinks.
- A separate building called the Zehmer Annex is located approximately 100 yards from the main building and houses a large distance education classroom.

From http://www.radford.edu:8800/~dised/waldronclassroom.htm

The distance education classroom in the Zehmer Annex at the University Center contains the following facilities and tools:

- Rows of tables with chairs at each table. Each table has two microphones within easy reach of the students.
- A professor's podium/work table.
- Two large televisions.
- A video camera placed at the front of the room at the professor's table.
- Televisions and a camera in the back of the room for the professor's use.

C. Blackboard Course Management System

Blackboard is a Web-based course-management system (CMS) designed to deliver online instruction. Through the use of Blackboard, students and faculty are able to participate in online classes and access materials and activities to enhance face-to-face teaching, such as virtual chats, discussion boards, an academic resource center, and online quizzes. Blackboard may be used to varying degrees. In some courses instruction may be delivered entirely through Blackboard without any face-to-face meetings between instructor and students.

SCPS currently uses Blackboard Version 5.5.1. Minimum system requirements for operating Blackboard are:
(http://www.people.virginia.edu/~sbs8j/VDL/minsys.htm)

- Internet Explorer 5.0
- 28.8 Modem (56K recommended)
- Windows 98
- Pentium II Processor
- 32 MB of RAM

1. Features for Faculty: Blackboard offers an extensive set of features that make it easy to coordinate and present course materials in an online environment. For example, the Blackboard interface may be organized as assignments, contact information, specific course materials, external resources (i.e. web links), or course announcements. Faculty members are able to manage their online courses through six areas of administration.

The Blackboard Administration areas are listed in the following table:

Blackboard Administration Areas	Features
Assistance	Provides online support contacts and online manual
Course Options	Contains tools for presentation of the class, menu bars, and advanced management of course components
User Management	Provides tools to manage Blackboard users and Enrollments
Content Areas	Allows faculty to make materials and information Available to students
Course Tools	Contains tools for interaction and communication with Students
Assessment	Provides tools for choosing and managing course statistics and assessments

Each of these areas is described in a separate module in the training provided by SCPS
(http://128.143.82.36/bin/common/course.pl?course_id=_114_1&frame=top).

The Blackboard Administrative Control Panel is shown below:
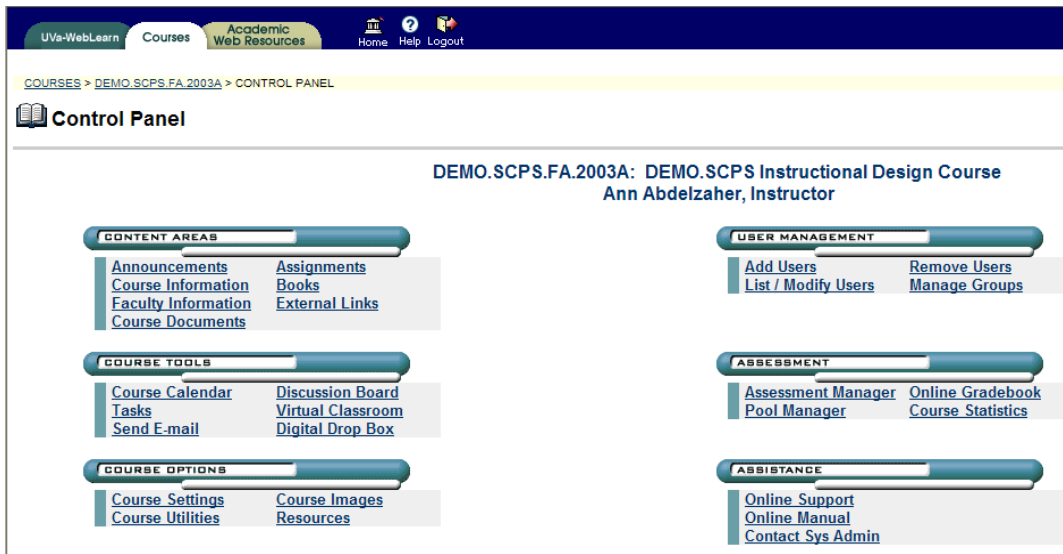
DEMO.SCPS.FA.2003A Course created by SCPS and accessed from
http://uva-weblearn.net/

2. Features for Students:

Blackboard's tools allow students to access the class roster, email their classmates (individuals or groups), view their grades, or engage in a chat or online discussion session with their peers.

Students have access to the following features:

Blackboard Features	Allow students to…
Announcements	View important messages from the instructor
Group Pages	Work in small groups on project assignments
Course Material	Download relevant course materials
Digital Drop Box	Submit assignments electronically
Assessment	Complete online evaluations or access grades
Virtual Classroom	Interact with the instructor and other students
Send Email	Send email to anyone who is registered for the course, including the instructors
Discussion Board	Participate in asynchronous conversations within Blackboard
Course Map	Quickly access specific areas of the course
External Links	Post and access links to websites outside of Blackboard
Resources	Access links to education related websites such as the National Education Association and the Chronicles of Higher Education

The Blackboard Student Tools Panel is shown below:
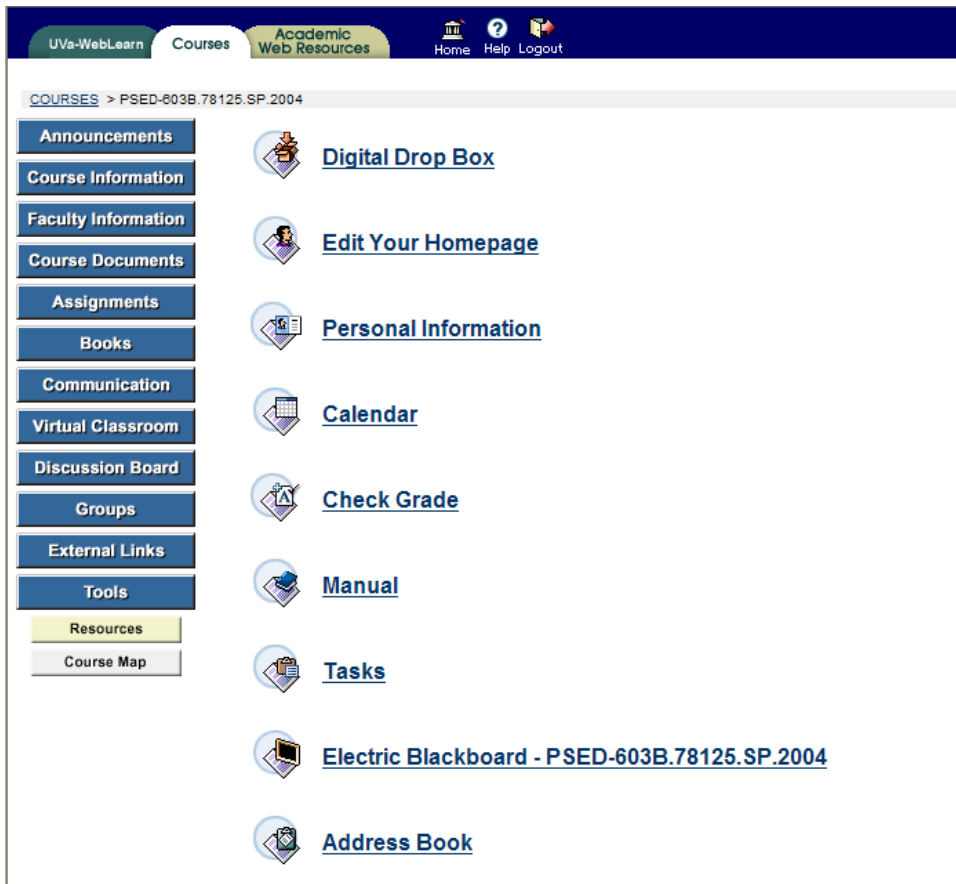
PSED-603B.78125.SP.2004 course created by SCPS and accessed from
http://uva-weblearn.net/

D. Resources for Faculty

Through the Virginia Distance Learning website SCPS offers guidelines and
support to assist both prospective and current online instructors with course
preparation. In the process of reviewing the electronic resources on the website a
new section was added to the site labeled "Teaching Guides" (Page Info for
http://www.scps.virginia.edu/vdl/instructors/guides/onlineguidelines.php: Modified
Friday, December 03, 2004 11:29:34 PM).

http://www.scps.virginia.edu/vdl/instructors/guides/onlineguidelines.php

According to the Teaching Guidelines, SCPS wants instructors to know the following before beginning online instruction:

- **Preparing to Teach**: General guidelines and a timeline for preparing faculty to teach online. Faculty can schedule a meeting with the Instructional Design Team to learn about support services and how to select a learning management system.

- **Choosing a Learning Management System**: Offers links to support pages for the learning management systems used by SCPS.

- **Blackboard:** Contains a checklist to ensure that initial course design requirements are met, and includes instructions for Blackboard course shell requests.

  http://www.scps.virginia.edu/vdl/instructors/tools/blackboardCourseProcess.php

  Other pages in the Teaching Guidelines section describe how to establish expectations for students, build an effective website, and use online assessments. Faculty members can review examples of courses and a list of questions that should be considered for online teaching.

The Educational Technologies Center within SCPS offers the following Blackboard support services for faculty:

- Directions for course shell request process web site: (*http://www.scps.virginia.edu/vdl/instructors/tools/blackboardCoursePr ocess.php*

- Online Guidelines for using Blackboard (contains written instructions for obtaining a Blackboard course shell and activating the required UVA email account): http://www.scps.virginia.edu/vdl/instructors/tools/blackboardCoursePro cess.php

- Logging In And Using Blackboard Cheat Sheet For 1st Time Users Of Blackboard: http://www.people.virginia.edu/~sbs8j/VDL/Logging%20in.pdf

- A self-paced online training module on basic instructional design, accessible from a guest Blackboard account. Completing the module is optional and is not a prerequisite. http://128.143.82.36/bin/common/course.pl?course_id=_114_1&frame =top

- A self-paced online training module describing the main functionalities of various tools within Blackboard. Completing the module is optional and is not a prerequisite.
  http://128.143.82.36/bin/common/course.pl?course_id=_114_1&frame =top.

- A list of the minimum system requirements required to use Blackboard: http://www.people.virginia.edu/~sbs8j/VDL/minsys.htm

- A link to technical support at the WebLearn website: http://uva-weblearn.net/

- An Instructor FAQ section: http://www.scps.virginia.edu/vdl/instructors/faq.php
  - ➢ How do I activate my UVA e-mail account?
  - ➢ How do I create an online course in Blackboard?
  - ➢ What Blackboard Support is available for students?

E. Resources for Students

This section describes the support provided to students enrolled in SCPS courses. Currently, SCPS does not provide a formal orientation on Blackboard for new students. To access the online resources, students log on to the **Virginia Distance Education section** of the SCPS website (http://www.scps.virginia.edu/vdl/students.php), containing the following resources:

- A print document providing a list of pertinent resources for UVA Email Services:
    - Instructions for obtaining a UVA assigned email account at http://www.scps.virginia.edu/email_form_instructions.htm
    - Links to University resources including security recommendations on ITC's web page "Quick Tips for Securing Personal Computers", the Central Mail Service web page, and ITC's "University Rules, Responsibilities, and Privacy" documentation at http://www.itc.virginia.edu/pubs/docs/RespComp/rchandbook04.html#email
    - A link to the WebLearn Student Support site: http://uva-weblearn.net/support2.asp

- A self-paced training module that describes the main functions available to students within Blackboard: http://128.143.82.36/bin/common/course.pl?course_id=_114_1&frame=top Completion of the module is optional and takes about 30-45 minutes.

- A student FAQ section: http://www.scps.virginia.edu/vdl/students/faq.php
    - Whom do I contact for further information?
    - How do I activate my UVA e-mail account?
    - What Blackboard Support is available for students?

Virginia Distance Learning
Educational Technologies
School of Continuing & Professional Studies
104 Midmont Lane
Charlottesville, VA 22903
434-982-5254

SCPS Student Virginia Distance Learning Website:
http://www.scps.virginia.edu/vdl/students.php

Blackboard Administrative and Technical Support

To facilitate student access to Blackboard, the WebLearn website
(http://www.uva-weblearn.net/) provides the following resources:

- WebLearn Student Support page for Blackboard:
  http://bb.admin.virginia.edu/support2.asp.
- Blackboard password request page: http://uva-weblearn.net/password/
- Support Options web form: http://www.uva-online.net/contact.asp
- Online Student Manual: http://company.blackboard.com/Bb5/manuals/Bb5-
  LevelOne-Student/Bb5-LevelOne-Student.pdf
- Self-paced Demo Course: http://128.143.82.36/bin/frame.pl?item=my_inst

The content is the same as the content provided in the course for students on the SCPS website.

- Contact information: Includes the email address (admin@uva-weblearn.net) and phone number for the WebLearn Help Desk (434-924-8686 Monday - Friday 8:00AM - 5:00PM EST). The WebLearn Administration Help Desk is available to students via phone or email.

WebLearn website (http://www.uva-weblearn.net/)

3 *Social Environment*

A. Introduction

The purpose of the social environment is to examine the skills and knowledge of SCPS faculty and their level of preparation for teaching in an online environment. This includes an examination of learning styles and preferences, as well as background experiences in teaching. Examining current behaviors or motivators helped the design team determine the perspectives or attitudes faculty have towards teaching in an online environment.

To gather information about the social environment, the design team relied on interviews and surveys of SCPS staff, faculty members, as well as current and former students. The design team also conducted a literature review of best practices for teaching and learning in an online environment.

Assessment of the social environment has been divided into the following areas:

- Faculty Knowledge: Entry level behaviors/actual performance of faculty (What do faculty members know about teaching in an online environment?)

- Faculty Needs: Needs/problems/solutions as identified by SCPS, faculty and WebLearn administrators to teach in an online environment (What do faculty members need to know and be able to do when teaching in an online environment?)

- Faculty Needs: Needs as identified through literature review (What do faculty members need to know and be able to do when teaching in an online environment?)

- Challenges and opportunities

The target population is the SCPS faculty members preparing to deliver an online course via the Blackboard course management system. Since 2004-2005 is the second year that SCPS used Blackboard to deliver courses, faculty members were concerned about adapting their current course materials and teaching style to the online environments.

B. Interviews/Survey Data on Faculty Actual Performance: SCPS Responses

The interviews with Dr. Scheer focused on her perceptions of current faculty preparation for teaching online courses and the support received from the Educational Technologies Center.

1. Faculty Skills:
- Teaching experiences in an online environment vary greatly, however the majority of SCPS faculty have never taught in an online environment
- Some faculty members have experience with other course management systems, most notably the Jones Knowledge Management system, and based their expectations for Blackboard on this experience
- Faculty know that teaching in an online environment requires a 're-thinking' of their current materials, but unless specifically asked how to re-purpose existing content for online courses, it is not covered in detail during the overview to Blackboard
- Faculty know how to create effective teaching strategies for traditional courses, however, they usually have difficulty implementing or adapting these strategies to the online setting.

2. Faculty Attitudes:
- Some faculty are apprehensive about teaching online and have concerns about the quality of the online delivery of the course compared to the traditional delivery of the course
- Faculty members do not always know what to ask, and some feel overwhelmed when presented with information about teaching online.

C. Interviews/Survey Data on Faculty Desired Performance: SCPS Responses

Dr. Scheer revealed the desired performance for faculty preparing to teach online courses and the desired support that faculty would receive.

1. Faculty Skills:
- Faculty need to know how to communicate content so students remain interested (for example, faculty do not want to post pages and pages of lecture notes on the web)
- Faculty need to know more about teaching strategies and the platform interface, making classes interactive, capture energy, and help students progress
- Faculty members realize that grouping students for learning is an important learning strategy in the online environment. However, they do

not always know how to effectively use grouping within Blackboard and why it can be useful

- It is most important to help faculty understand how to teach effectively in an online environment.
- Faculty need to independently design and manage courses for online delivery. Ideally, an SCPS staff member would provide in depth assistance to the faculty member over the course of the semester.
- Faculty need to see more examples of successful online learning strategies

D. Interviews/Survey Data on Faculty Actual Performance: Faculty Responses

The instructor interviews focused on professors' perceptions of their preparation for teaching online courses and the support they received.

1. Faculty Skills
- Dr. Scheer was helpful and very accessible (in person consultation, phone, email).
- Technical and course development provided by Dr. Scheer and WebLearn administrators has been extremely helpful.
- Some faculty who started working with Blackboard when it was first introduced by SCPS contacted other individuals with Blackboard experience.
- Faculty used the course shell creation guidelines produced by SCPS.

2. Faculty Opinion and Attitudes
- Personal consultations with Dr. Scheer were more valuable than the overview training because specific concerns could be addressed.
- Faculty members are concerned about the change from traditional lecture based environment to the online environment.
- Students have a lot of questions regarding registration.

E. Interviews/Survey Data on Faculty Desired Performance: Faculty Responses

1. Faculty Skills:
- Faculty members want to incorporate strategies for effective interaction in the online courses. For example, strategies for getting students to think and respond critically, something more than student responses like "I agree" or "That is a great idea, I'll have to try it".

2. Desired Resources/Support for Faculty
   - Faculty indicated that it would be helpful to have a checklist with all the steps to get started each semester (Note: This information was recently added to the SCPS Virginia Distance Education website: http://www.scps.virginia.edu/vdl/instructors/guides/online/onchecklist.php).
   - Faculty noted that it might be helpful to provide registration information in several places (i.e. course brochures, SCPS website). Student registration should be online and processed automatically.
   - It may help to more clearly define the relationship between WebLearn and Blackboard registration upon student registration

F. Interview/Survey Data on Student Needs: SCPS Responses

The majority of students taking an SCPS course are UVA students, adult learners, or alumni who want to take a blended or distance education course in order to continue full-time work or other pursuits, or to supplement a degree program. The interviews of current and former SCPS students focused on their perception of faculty preparation for teaching online courses and the support students received from the Educational Technologies Center and their instructors. These interviews indicate that:

- Students can access an online quiz that provides them with feedback on whether or not they would enjoy learning online, but there is no formal assessment of student entry behaviors by SCPS.
- Students do not receive a formal orientation; the instructor provides students with an introduction of how Blackboard tools will be used in the course.
- A successful course and Blackboard registration process is an ongoing concern to ensure student satisfaction and a positive experience with UVA.
- Official evaluations of online instructors are managed by the individual degree or certificate programs and are not used for a comprehensive review of faculty by SCPS.

G. Interview/Survey Data on Student Needs: Student Responses

- Instructors usually provide an introduction to Blackboard at the first class meeting. Students feel that faculty members are knowledgeable about the features of Blackboard.
- Some students had prior experience with Blackboard.

- Once the students received the orientation to Blackboard from the instructor at the first class meeting, most had no difficulty in using the software.
- The digital drop-box feature was hard for some students to use and they did not realize that they had failed to submit assignments.
- Students received instructions for obtaining UVA email accounts and login information for Blackboard from faculty.
- Students expressed more satisfaction with courses that provided the opportunity for interaction with the instructor as well as peers.
- Students have difficulty locating registration and orientation instructions posted on the Virginia Distance Education website.
- Some students are confused about the difference between obtaining a UVA email account and a Blackboard account.
- Students were not clear about the relationship between WebLearn administration and Blackboard.
- When students accessed the WebLearn website as shown below, they were unsure if they had reached the correct website.

WebLearn Student Support page:
(http://bb.admin.virginia.edu/support2.asp)

- New students noted that they were also confused about the three options listed on the WebLearn website for obtaining an UVA email account (http://bb.admin.virginia.edu/default.asp). When students saw the option to register a third party-email address, they did not understand why they needed an active UVA email account.

- Students cited the registration process and activation of the UVA email account as one of the challenging aspects of preparing to take a Blackboard course, one for which they frequently seek support.
- Students were not always aware that the registration process would take several days, and were unsure whom to contact to resolve Blackboard registration issues.
- Students are interested in obtaining more information about how Blackboard is going to be used in their courses before the course begins. Students note that faculty referred them to the online training module on the SCPS website (http://128.143.82.36/bin/common/course.pl?course_id=_114_1&frame=top) and also to the Student Online Manual (http://company.blackboard.com/Bb5/manuals/Bb5-LevelOne-Student/Bb5-LevelOne-Student.pdf), but students had trouble navigating through the Virginia Distance Education section of the SCPS website to access these resources.
- Many students were unaware of the existence of the Help Desk run by SCPS.

H. Challenges/Opportunities

Faculty preparation often involves repurposing existing course materials and adapting them for online delivery, in addition to adjusting teaching methods to an online learning environment. Electronic resources providing best practices documentation and guidelines are available to faculty via the SCPS Virginia Distance Education web site. However, surveys indicate that faculty do not fully utilize the existing resources and prefer the personal attention they may obtain in one-on-one consultations with a SCPS staff member. Faculty members prefer customized help to resolve specific challenges they face in course development and preparation.

Needs Analysis Tables

As a result of the interviews and surveys, a number of needs have been identified in regards to faculty preparation for online course development, including adjusting teaching strategies and repurposing existing course materials and adapting them to distance delivery. The needs outlined in the following table illustrate the supports that should be considered to assist faculty in this preparation.

Tables 1, 2, and 3 describe the needs of the faculty preparing to design and deliver online courses for SCPS using the Blackboard course management system, the needs of students taking an SCPS course, and the possible methods to address them.

Table 1 provides a rank-ordered list of the needs of Blackboard users, including the desired situation, current situation, evidence supporting each statement and the importance of each need. The needs were ranked based on information from the interviews with the SCPS staff, faculty and students; the design team's observations; a literature review of best practices for online and distance learning; a review of the faculty and student support resources; and a review of the Blackboard course management system software.

Table 2 lists the needs of the faculty and students, along with possible barriers or motivators that might effect the implementation of the suggested methods.

Table 3 shows each of the possible needs listed in Table 2, along with possible methods for addressing the needs and the advantages and disadvantages of each method.

Table 1: Needs of Target Population: SCPS Faculty and Students

Desired	Current	Evidence	Importance
1. SCPS determines level of faculty entry skills for Blackboard in order to present more targeted training for faculty with different skill levels.	Because faculty have a wide range of experiences with Blackboard or other course management systems, SCPS cannot easily target existing distance learning support services to different skill levels.	Dr. Scheer noted that there is currently no formal process for measuring faculty entry level skills.	This is of primary importance because it enables the SCPS staff to design more proactive, targeted instruction based on faculty skill level and to monitor faculty development.
2. Faculty members effectively repurpose existing course materials and adapt them to the online environment (Blackboard) in order to maximize student learning.	Many SCPS faculty members have never taught in an online environment. They realize that teaching online requires a "re-thinking" of their current materials, but they do not always know how to make it happen.	Dr. Scheer noted that she discusses student-oriented strategies with faculty during the one-on-one consultations, but these consultations only occur when faculty take the initiative to contact her. Dr. Scheer indicated that this topic is not covered as much as desired in orientation. Although she made faculty members aware of general strategies, more detailed explanations and examples are not provided.	Re-purposing course materials is most important because in the online environment, traditional materials may be ineffective for facilitating student learning. Student learning is at the core of the mission of SCPS. In addition, effective course redesigns can be reused and adapted to other subjects, and can be utilized as examples in SCPS training, a key aspect of SCPS support services.

Desired	Current	Evidence	Importance
3. Faculty members effectively adjust teaching strategies to the online environment and apply student-centered learning theories and practices.	Faculty members primarily implement traditional teaching methods and strategies in the online environment based on their existing course materials.	According to Dr. Scheer, many faculty members are not aware of the strategies needed in order for students to be successful in an online course.	Research has shown that student satisfaction and motivation for online learning increases when students are involved in student-centered interactive experiences. Focusing on improving teaching strategies for the online environment can increase the quality of the instructors and thus the quality of programs offered by SCPS, which is central to the SCPS mission.
4. Faculty members clearly articulate course expectations and learning objectives in the syllabus for the online course.	Some faculty members continue to establish course expectations and student learning goals based on traditional course materials and teaching methods.	Dr. Scheer noted that faculty members often have difficulty redesigning the syllabus to communicate objectives and incorporate interaction that is appropriate for an online environment.	Clearly articulated expectations and a well-designed syllabus provide a road map for the course and also provide a contract with the student. While addressing the redesign of course materials and adjustment of teaching strategies are most important, this is a key need because it may reduce student complaints and surprises for the faculty. Very worthwhile, but only after the desired skills listed in #1 and #2 above have been achieved.

Desired	Current	Evidence	Importance
5. Faculty members create an interactive online learning environment in order to maximize student learning.	Many faculty members currently implement lecture-based instruction and do not always know how to fully apply grouping strategies and effective methods to foster an interactive learning environment.	Dr. Scheer indicated student interactivity this is a successful component of online learning. Faculty indicated that incorporating interactivity was challenging. Some faculty indicated that some students are not fully participating in critical analysis of course content.	More information is retained when students are actively involved in instruction. It is important to SCPS to increase student satisfaction levels and maintain enrollment and incorporating interactive experiences can motivate students and increase their success in meeting course objectives. Worthwhile to integrate new elements such as interactivity, but only after faculty have repurposed course materials that have with a clear structure.

Desired	Current	Evidence	Importance
6. Faculty effectively measure student learning in the online environment.	Faculty members do not currently have sufficient guidelines and experiences for effectively adapting traditional student assessment methods to the online environment.	Half of the faculty members attend orientation sessions, where assessment is covered briefly in the overview. There is currently no formal assessment by SCPS. Student evaluations of instructors and courses are collected by individual programs.	Without effective evaluation, faculty cannot assess their own teaching and make changes. Student feedback is important for improving SCPS services and sustaining student motivation and evaluating learning outcomes and whether or not course objectives have been met. Allows SCPS to monitor the success of programs and supports faculty efforts to improve the process of repurposing materials.

Desired	Current	Evidence	Importance
7. Before the first day of class, students will be registered for the course, obtain a UVA email account, and obtain Blackboard account activation.	Current UVA and Blackboard registration procedures often contribute to delays in student Blackboard account activation. The term "WebLearn" is only known internally. Students are confused about the relationship between WebLearn and Blackboard administration.	Faculty noted that during the first week of class, a significant amount of instructional time is spent resolving Blackboard access issues for students.	This is of less importance, because the issue is addressed by faculty during the first week of class. However, addressing the issue would allow faculty to use instructional time to familiarize students with Blackboard features needed to complete assignments.

Table 2: Needs, Barriers/Motivators and Possible Methods

Need	Barriers (B) & Motivators (M)	Methods
1. SCPS determines level of faculty entry skills for Blackboard, in order to present more targeted training for faculty with different skill levels.	B: Faculty may be uncomfortable being assessed. M: May enable SCPS to reduce of volume of help desk and support requests. M: May help SCPS streamline support services for Blackboard.	Faculty complete online surveys for SCPS before receiving course approval so that SCPS can gather more complete data about current faculty skill levels. This is the first step in the course development process.
2. Faculty members effectively repurpose existing course materials and adapt them to the online environment (Blackboard) in order to maximize student learning.	B: Extensive time is required to effectively repurpose the materials. M: Redesign of course materials could provide an opportunity to include collaborative activities that address different student learning styles, which might improve faculty and course evaluations.	SCPS provides workshops on course development. SCPS establishes online discussion group for faculty members to facilitate exchange of successful practices and chooses an experienced faculty Blackboard user to serve as the moderator. SCPS requires new faculty to complete orientation session on course design.

Need	Barriers (B) & Motivators (M)	Methods
3. Faculty members effectively adjust teaching strategies to the online environment and apply student-centered practices and learning theories.	M: Faculty indicated that they would like to interact with peers to learn how to use interactive online features, such as the discussion board. B: Faculty may not be willing to invest the necessary time and energy to engage in self-improvement, or may not receive release time or adequate compensation.	SCPS provides workshops on teaching strategies for blended courses where experienced faculty model good examples for new faculty. Workshops are taped to create a video archive. SCPS establishes a mentorship committee. Each new instructor is assigned to an experienced faculty member who can provide feedback and long-term support over the entire semester/year.
4. Faculty members clearly articulate course expectations and learning objectives in the syllabus for the online course.	M: Clear expectations would prevent student complaints about course requirements. M: Course design would be more streamlined because it is based on careful planning. M: SCPS would be able to provide more targeted support and focus less on general education about course planning.	SCPS coordinates an online forum or workshop in which experienced faculty Blackboard share syllabi modeling clearly articulated objectives, course goals, and student learning outcomes. Faculty members also discuss challenges and opportunities and why their models have been effective.

Need	Barriers (B) & Motivators (M)	Methods
5. Faculty members create an interactive online learning environment in order to maximize student learning.	B: Incorporating interactive elements requires additional time and support, extensive planning M: Instructors might be willing to incorporate effective interaction into traditional courses to increase student satisfaction M: Instructors gain satisfaction by interacting with students	SCPS coordinates with the Instructional Technology Group located in the UVA Teaching Resource Center to offer an online short course on Course Tools and Design, where experienced faculty Blackboard users model examples of interactive activities.
6. Faculty effectively measure student learning in the online environment.	B: Many online assignments are subjective and may require complex rubrics. B: Faculty may not have time to adapt the necessary multi-level assessment techniques to the online environment. B: There may be technical issues with collecting valid data. M: Using the technology may allow faculty to consolidate the assessment progress. M: Faculty are interested in improving the effectiveness of their own teaching style	SCPS offers an online short course on Tests and Measurements to the faculty via Blackboard. This course integrates and models a variety of effective assessment tools for the online learning environment.

Need	Barriers (B) & Motivators (M)	Methods
7. Before the first day of class, students will be registered for the course, obtain a UVA email account, and obtain Blackboard account activation.	B: Current institutional processes do not allow for integration of dual registration in ISIS and Blackboard. M: Faculty members regain instructional time previously used to address student email and Blackboard registration issues.	SCPS or WebLearn administrators create a web-based registration form that collects student registration information without manual processing and stores it in an Access database. This would allow WebLearn administrators to use the information to activate Blackboard accounts without delay.

Table 3: Possible Methods, Advantages, Disadvantages

Possible Methods	Advantages	Disadvantages
Faculty complete online surveys for SCPS before receiving course approval so that SCPS can gather more complete data about current faculty skill levels. This would be the first step in the course development process.	Collecting data helps facilitate more specialized training and support services for faculty.	Faculty may provide incomplete data. Designing the survey is a time intensive task.
SCPS provides workshops on course development.	Training on course development could be outsourced.	Significant increase in personnel may be required to implement. Faculty may not be granted release time to attend workshop. May difficult to implement and coordinate due to the travel required by SCPS.
SCPS establishes online discussion group for faculty members to facilitate exchange of successful practices and chooses an experienced faculty Blackboard user to serve as the moderator. Faculty users of Blackboard share syllabi modeling clearly articulated objectives, course goals, and student learning outcomes.	SCPS can adequately provide support and maximize its resources by offering the alternative peer network. Allows faculty to collaborate. New faculty members may be more willing to seek additional help if they are presented with challenges and opportunities that other faculty have encountered.	Faculty might receive incorrect information or information that does not support the SCPS mission. Faculty may not want to participate in an on-line discussion group, preferring one-on-one assistance, instead. SCPS may not be aware of problems that are occurring in courses until they are presented by faculty in the online forum. Faculty may be uncomfortable with the idea of archiving teaching problems.

Possible Methods	Advantages	Disadvantages
SCPS requires new faculty to complete orientation session on course design.	SCPS can gauge what faculty members already know about course design and development and determine steps for continued support.	Faculty may be unwilling to attend if they feel that a mandatory session does not address their individual needs or if they feel they will not be adequately compensated for devoting the additional time. Instructors from other universities or adjunct faculty members hired by SCPS may not be able to attend.
SCPS provides workshops on teaching strategies for blended courses where experienced faculty model good examples for new faculty. Workshops are taped to create a video archive.	By attending a workshop, new faculty are introduced to experienced faculty and have a chance to collaborate. Video archive could be easily maintained and accessed by new faculty members.	Faculty may not be granted release time to attend the workshop. Coordinating face-to-face workshops may be difficult. Videos do not provide an interactive format and faculty cannot ask follow up questions about content.

Possible Methods	Advantages	Disadvantages
SCPS establishes a mentorship committee. Each new instructor is assigned to an experienced faculty member who can provide feedback and long-term support over the entire semester/year.	SCPS can expand its support services and more adequately address faculty needs.	Faculty may not be available to participate in a mentoring program due to time constraints. Faculty may not be willing to assume this additional responsibility without additional compensation or time release from other duties.
SCPS offers an online short course on Tests and Measurements to the faculty via Blackboard. This course integrates and models a variety of effective assessment tools for the online learning environment.	Faculty would become familiar with the Blackboard interface from the student perspective and be able to experience and evaluate a variety of online assessment techniques. The course may provide faculty with assessment techniques for the traditional classroom.	It may be difficult to teach the complex concepts in an online short course. Face-to-face interaction may be more helpful to faculty. It may be too expensive to implement because of cost of materials and instructor salary.

Possible Methods	Advantages	Disadvantages
SCPS coordinates with the Instructional Technology Group located in the UVA Teaching Resource Center to offer an online short course on Course Tools and Design, where experienced faculty Blackboard users model examples of interactive activities.	SCPS can collaborate with other UVA groups to utilize existing training materials and techniques. Using existing materials may reduce the cost of providing training.	The Teaching Resource Center's techniques and materials may not adequately meet the needs of SCPS faculty. Faculty may not have time to participate.
SCPS or WebLearn administrators create a web-based registration form that collects student registration information without manual processing and stores it in an Access database. This would allow WebLearn administrators to use the information to activate Blackboard accounts without delay.	Registration may be processed more efficiently, reducing support calls and reducing amount of instructional time that faculty must use to resolve registration questions.	ISIS student system will be updated in a few years, so it may be better to wait.

Needs to Be Addressed

Based on the data above, the design team recommends that SCPS address needs 1 through 6 (listed in Table 1) in order to effectively prepare faculty to teach in an online environment. While there is a need for student course registration to be integrated into the Blackboard registration system, it cannot be addressed by the individual school until it has been addressed at the university level.

The needs to be addressed are listed below:

1. SCPS determines level of faculty entry skills for Blackboard in order to present more targeted training for faculty with different skill levels.
2. Faculty members effectively repurpose existing course materials and adapt them to the online environment (Blackboard) in order to maximize student learning.
3. Faculty members effectively adjust teaching strategies to the online environment and apply student-centered learning theories and practices.
4. Faculty members clearly articulate course expectations and learning objectives in the syllabus for the online course.
5. Faculty members create an interactive online learning environment in order to maximize student learning.
6. Faculty effectively measure student learning in the online environment.

Goal Statement

Faculty members have ready access to resources reflecting best practices in distance education. To deliver a successful online course in Blackboard, SCPS faculty will repurpose existing course materials, adjust their teaching strategies to apply student-centered practices, and integrate interactive components into their courses.

Recommendations

The following solutions would expand the support procedures for faculty using Blackboard in a way that maximizes SCPS resources, allowing experienced faculty and SCPS staff to collaborate in support of new faculty:

1. Faculty complete online surveys for SCPS before receiving course approval so that SCPS can gather more complete data about current faculty skill levels. This would be the first step in the course development process. SCPS designs an online survey attached to a database that stores faculty responses. The database is easily created by current technical staff, but the

survey may have to be developed outside of SCPS (possibly at an additional cost). SCPS would need to allow at least a semester to develop and implement the survey (allowing for review and revisions).

2. SCPS requires new faculty to complete orientation session on course design. Faculty attend an in person orientation led by current SCPS staff members. The session is mandatory for new faculty and includes both a Blackboard overview and introduction to course design. SCPS can supplement existing orientation materials, which reduces the overall cost and time required.

3. SCPS coordinates with the Instructional Technology Group located in the UVA Teaching Resource Center to offer an online short course on Course Tools and Design, in which experienced faculty Blackboard users model examples of interactive activities. This course will enable the faculty to learn how to reorganize materials and how to use multi-media tools to make materials accessible. If SCPS collaborates with another group, both groups may be able to use the materials in different contexts. SCPS would need to allow at least one semester to deploy the online survey that measures faculty needs (as indicated in recommended solution #1) and at least another semester to design, review and revise the materials. A roll-out of the finished product could occur during the third semester.

4. SCPS establishes a list of experienced faculty Blackboard users available to mentor new faculty. Each new instructor is assigned to an experienced faculty member who can provide one-on-one feedback and long-term support over the entire semester/year. The new faculty member would contact the experienced faculty mentor as needed to review and assess course development progress and discuss possible methods for improving online teaching. It would take at least a semester to identify mentors and match them with new faculty, and at least a year to see the results of the collaboration. To encourage experienced faculty to serve as mentors, SCPS could provide incentives such as additional compensation, summer financial support, tuition remission for continuing education.

5. SCPS establishes a general online FAQ for faculty members to facilitate exchange of successful practices by working with experienced faculty Blackboard users. It would take at least a month to develop the website for the FAQ section. SCPS would need to allow a few months to publicize the FAQ to the faculty.

Appendix

Literature Review of Best Practices in Distance Education

Faculty Needs/Optimal Performance

The design team conducted a review of the literature related to best practices in distance education. The Higher Learning Commission has divided "Best Practices" for distance education into five separate components:
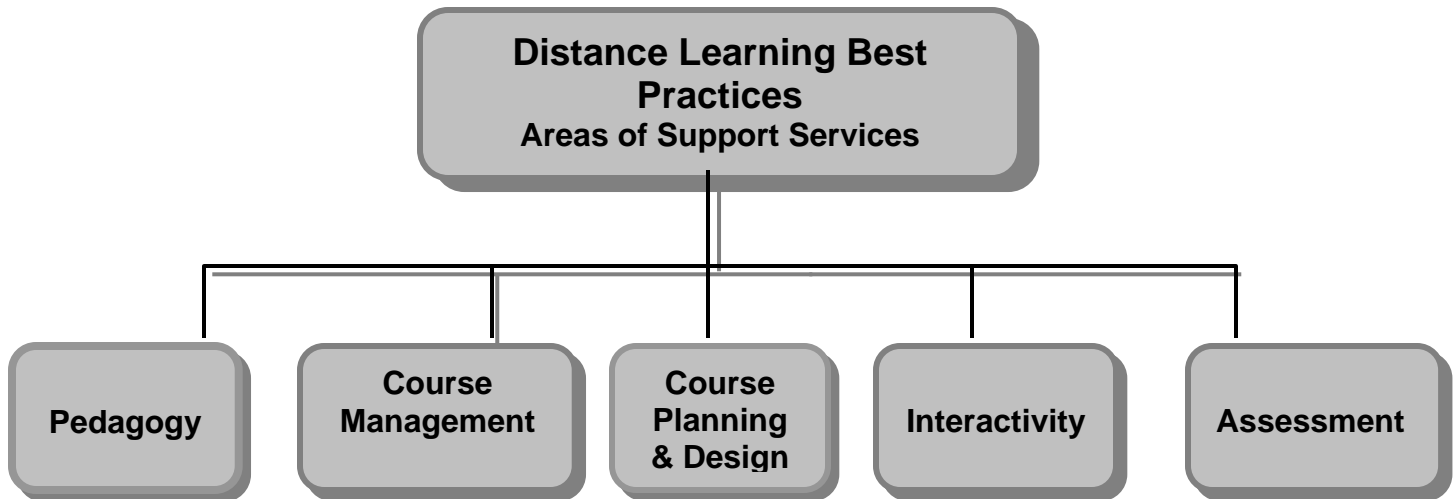
1) Institutional Context and Commitment
2) Curriculum and Instruction
3) Faculty Support
4) Student Support
5) Evaluation and Assessment

For the purposes of this project, the design team has chosen to focus on best practices for supporting and preparing faculty to teach in an online environment as they relate to course planning and design and student learning. An overview of Best Practices for preparing and supporting faculty for distance teaching and learning may be used as a spring board for reviewing distance learning support services for SCPS faculty. The following selected *Best Practices,* relative to preparing and supporting faculty to teach in an online environment, serve as a guide for developing successful online teaching and learning experiences for both faculty and students.

Best Practices for Distance Education (Commission of Higher Learning)

Best Practices	Guiding Questions
The institution provides an ongoing program of appropriate technical, design, and production support for participating faculty members	-Availability of support services available to those responsible for preparing courses/programs -Availability of support services to faculty members responsible working directly with students
The institution provides to those responsible for working directly with students the orientation and training to help them become proficient in the uses of the program's technologies, course design and management, including strategies for effective interaction	-Availability of orientation and training programs -Adequacy and appropriateness of orientation and training programs -Opportunities for ongoing professional development -Emphasis on pedagogical changes in an online learning environment -The feasibility of potential changes in course design and management, given available staff to support online programs
The importance of appropriate interaction (synchronous or asynchronous) between instructor and students and among students is reflected in the design of the program and its courses, and in the technical facilities and services provided	-Provisions for instructor-student and student-student interaction -Appropriateness of interaction -Appropriateness and timeliness to students' assignments -Type of technologies employed -Success of program's interactive component as indicated by student/instructor surveys
As a component of the institution's overall assessment activities, documented assessment of student achievement is conducted in each course and at the completion of the program, by comparing student performance to the intended learning outcomes	-Institutional review of effectiveness of its distance education programs to assure alignment with institutional priorities and educational objectives -Integration of assessment activities related to distance learning into institution's broader program assessment -Identification of student learning needs – how addressed and linked to educational objectives and learning outcomes -Evaluation of student performance – how conducted -Comparison of student performance to intended learning outcomes

Based on the Best Practices outlined above, the design team has identified the following major areas of Best Practices support services for faculty.

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                    ┌─────────────────────────┐
                    │  Distance Learning Best │
                    │        Practices        │
                    │ Areas of Support Services│
                    └─────────────────────────┘
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| Pedagogy | Course Management | Course Planning & Design | Interactivity | Assessment |

In addition to the support areas, Chickering & Ehrmann (1996) have identified Seven Practices for effectively engaging in learning. These principles may be applied to the virtual course development and delivery. The principles are briefly described along with ideas for interactive engagement (Mabrito, 2004) and questions/suggestion for effective communication strategies in an online environment (Miller, 1999).

Principle 1: COMMUNICATION - Good Practice encourages contacts between students and faculty

Frequent contact between faculty and students fosters student motivation and encourages engagement and success. Several types of online interactions and guidelines for how these interactions may enhance student learning are listed below:

How can faculty provide opportunities for students to question the instructor in order to insure accuracy of understanding?

Communication strategies include:
(a) Providing hyperlinks to the instructor's e-mail address (one-to-one, asynchronous)
(b) Using instant messaging (one-to-one, synchronous)

(c) Creating a bulletin board to promote questioning and provide instructor responses that are accessible to all students (one-to-many, asynchronous).

- *Student-Instructor Interaction*: consider synchronous vs. asynchronous interaction; if using asynchronous (email, discussion boards) allow for more thorough follow-up but have the disadvantage of not always being timely. It is important to establish protocol for feedback.

- *Instructor-Student Private Interaction:* Instructor should initiate regular, ongoing communication with student. Personal emails (asynchronous) can enhance student motivation

- *Instructor-Student Public Interaction*: Establish focused topic in online discussion board, allow students to participate freely, post follow-ups – simulate discussion and feedback to 'real life' engagement

Principle 2: INTERACTIVITY - Good Practice develops reciprocity and cooperation among students

"Students are most successful in online courses that provide ample opportunities for them to interact with instructor, other students, and the course content. An interactive online course must engage students as active learners rather than passive participants" (Mabrito, 2004). Interaction in an online environment is critical to sustain interest in the course and to help students progress toward achieving course goals and learning objectives Studies suggest (see Mabrito) that opportunities to interact and exchange experiences and ideas fosters learning. Interaction into an online course may be built in through features such as the discussion board, grouping strategies, journals or other features which position the learner to interact with others and the material.

How can faculty create opportunities for students to communicate with each other in order to share their understanding of course content?

Communication strategies include:

(a) Establishing chat rooms that enable on-line discussions of course content (many-to-many, synchronous)

(b) Creating a bulletin board for this same purpose (many-to-many, asynchronous).

How can faculty provide opportunities for learners to collaboratively construct knowledge based on multiple perspectives, discussion, and reflection?

Communication strategies include:

(a) Selecting software tools that support collaborative learning/communication (many-to-many, synchronous and asynchronous)

(b) Using audio and video conferencing to facilitate information sharing and discussion among students (many-to-many, synchronous)

(c) Employing Internet voice mail to promote immediacy of communications (one-to-many, synchronous).

- *Student-Student Interaction:* Creating anonymous discussion boards can encourage student engagement – it allows students to seek assistance with problems and questions without revealing their identity.

To foster interactivity among students, faculty members establish clear criteria for synchronous and asynchronous discussions. Discussion boards are an excellent tool for interaction – they provide opportunities for threaded discussions, problem solving, allow learners to bring prior knowledge and experiences into the classroom and allow students to learn from each other.

Principle 3: PEDAGOGY - Good Practice uses active learning techniques

"Constructivism is a philosophy of learning based on the premise that knowledge is constructed by the individual through his or her interactions with the environment" (Rovai, 2004). Learners from the constructivist viewpoint are seen as active participants of their own learning, contributors to their own knowledge building. A constructivist curriculum involves accessing students' prior knowledge, adapting teaching strategies to students' responses and backgrounds, and engaging students in active dialogue through questioning and real-life problem solving.

Good pedagogy involves engages students higher order thinking skills that foster a deeper learning and processing of information. Some of these skills are listed below:

- Summarizing – students should be able to highlight what is important, assess what they have learned, and clarify their purposes in performing a task
- Interpreting – by connecting subject matter to students own backgrounds, they engage in a comparison to the lives and backgrounds of others, allowing them to make interpretations about differences and similarities between people/culture
- Problem solving – requires multiple opportunities of representing solutions
- Reasoning – the ability to make conjectures, gather evidence, and build arguments in order to make generalizations about patterns and relationships and identifying common properties (especially in mathematics)
- Communicating – requires the ability to articulate a reason to a problem, share a rationale for a particular problem solving strategy, summarize the

meaning of data, describe concepts and their relationship to its representative model, justify arguments
- Synthesizing information by using scientific facts and concepts
- Organizing data in graphs, tables, or diagrams

Principle 4: ASSESSMENT - Good Practice Gives Prompt Feedback

Evaluation of student online learning is key to determining course, program, as well as institutional success. A variety of resources for distance education evaluation criteria have been developed and made available to assist institutions and faculty to assess online course design, teaching and learning strategies, as well as learning outcomes (Sener, 2004). Evaluation and assessment categories include principles and guidelines for good online teaching practices, measures of quality, and characteristics of quality and success. The design team has identified a number of resources and examples designed to assess institutional and instructional effectiveness in facilitating student online learning.

Guiding Principles and Standards:

American Distance Education Consortium (ADEC) Guiding Principles for Distance Teaching and Learning
http://www.adec.edu/admin/papers/distance-teaching_principles.html

National Education Association Quality Benchmarks
http://www.nea.org/nr/nr000321.html

Southern Regional Educational Board's Principles of Good Practice and Criteria for Evaluating Online Courses
http://dl.austincc.edu/faculty/SRECGoodPractice.htm
http://www.evalutech.sreb.org/criteria/online.asp

The following institutions use specific tools (e.g., instruments, protocols, and rubrics) indicating how standards are met:

Michigan Community College Virtual Learning Collaborative
Online Course Development Guidelines and Rubric
http://www.mccvlc.org/~staff/Course-Guidelines-Rubric-v1.2.html

California State University-Chico
Rubric for Online Instruction
http://www.csuchico.edu/tlp/webct/rubric/

Chickering and Gamson's seven principles for good practice

http://honolulu.hawaii.edu/intranet/committees/FacDevCom/guidebk/teachtip/7principh.htm

Prince George's online course assessment process
http://academic.pg.cc.md.us/ole/online_course_assessment_process.htm

EDUCAUSE
http://www.educause.edu/ep/

Sloan – a Consortium of Institutions and Organizations committed to Quality Online Education
http://www.sloan-c.org/index.asp

Western Cooperative for Educational Telecommunications (**support for students**)
http://www.wcet.info/projects/laap/index.asp

How can faculty obtain student feedback to insure accuracy of understanding?

Communication strategies include:

(a) Using e-mail to pose questions and solicit answers (one-to-one, asynchronous)
(b) Creating a bulletin board to pose topics for discussion and to solicit responses that reflect students' thinking about the subject matter (many-to-many, asynchronous)
(c) Using audio and video conferencing to discuss content and solicit student responses (one-to-many, synchronous).

How can faculty provide opportunities for learners to articulate and revise their thinking in order to insure the accuracy of knowledge construction?

Communication strategies include:

(a) Creating bulletin boards to record students' responses for later analysis and reflection (many-to-many and one-to-one, asynchronous)
(b) Using e-mail to pose questions and solicit information (one-to-many, asynchronous), (c) using audio and video conferencing to promote discussion and information-sharing (many-to-many, synchronous).

Faculty must apply a variety of assessment methods as well as offer multiple avenues to demonstrate performance in order to accommodate varying learning styles – online assessments, assessment of major projects, etc.

Examples:

- Student survey
- Minute paper/Journal - repurposing for online learning (Vonderwell, 2004)
- Online Learning Evaluation Rubric (Chico State)

- Planning and Assessment Model for Developing Effective CMS Support (for institution)

http://www.westga.edu/~distance/ojdla/spring71/johnson71.html

Principle 5: ENGAGEMENT - Good Practice emphasizes time on task

How can faculty present a problem-solving situation in a realistic context?

The primary communication strategy is to select computer-supported collaborative learning software that communicates "real life" problems in a format and that provides opportunities for students to collaboratively resolve problems (one-to-many and many-to-many, asynchronous).

To effectively engage students in an online environment, faculty must:
- Provide clear learning goals and objectives/outcomes
- Establish opportunities for team-based learning such as group projects and presentations (access to experts, link learners with others, expose learners to resourses
- Apply a combination of strategies (i.e. visual and audio)

Principle 6: - CONTENT DESIGN AND DELIVERY - Good Practice communicates high expectations

How can faculty present course content in a manner that hierarchically structures the sequence of information?

Communication strategies include:
- Using an authoring program to control the structure and sequencing of course content (one-to-many, asynchronous)
- Embedding questions in course materials to facilitate elaboration of content (one-to-many, asynchronous)
- Using audio and video conferencing to present content and prescribe learning activities (one-to-many, synchronous).

How can faculty create opportunities for the instructor to coach and facilitate construction of student knowledge?

Communication strategies include
(a) Using instant messaging to provide immediate motivation (one-to-one, synchronous)
(b) Using e-mail to analyze learners' understanding of content and to provide feedback (one-to-one, asynchronous)
(c) Using audio and video conferencing to model reasoning and problem-solving skills (many-to-many, synchronous).

Principle 7: REPURPOSING - Good Practice respects diverse talents and ways of learning

- *Student-Course Content Interaction:* A course web site should be adaptive (user can alter page), navigational (user accesses hyperlinks), and functional (user is able to achieve goal, such as finding desired information easily). Design of site should be sensitive to students' different learning styles and needs (text-based learners vs. graphic/animation/sound based learners,

A good source for discussing concepts and rationale for repurposing materials may be found at the following links. Users may 'walk through' the site and learn about concepts and at the same time experience them.

Designing Instructional Articles (good model for combining media audio/visual (good for training faculty/Addresses different learning styles) http://www.innovateonline.info/index.php?view=article&id=8 (click on online instructional format) within article by Morland and Bivens http://www.innovateonline.info/ (Dec 2004 issue)

Interactive Paradigm: http://www.smcc.qld.edu.au/infotech/Paradigm/Interact.htm

Repurposing Old Paradigms: http://www.smcc.qld.edu.au/infotech/Paradigm/RepOld.htm

Course Management References

Needed skills for successful online course delivery/faculty Characteristics of successful course preparation and delivery

Nijhuis, G. G., Collis, B., (2003). Using a web-based course-management system: an evaluation of management tasks and time implications for the instructor. *Evaluating Educational Technology, Volume 26, Issue 2. pp. 193-201.*

This article analyzed tasks and time involved in developing an online course materials and emphasizes the huge amount of time and energy required to develop successful online instruction. Among them:

Task Components include:
- Course planning
- Course preparation
- Searching for resources
- Preparing lectures

- Reviewing assignments
- Monitoring assignments
- Course communication
- Social Interactions with students
- Professional interactions
- Administer (keep records of student progress)
- Archive (course materials, resources)

The authors have identified strategies where time can be more efficiently and effectively used to help faculty manage these tasks. The following items suggest higher management efficiency:

- A feedback tool, whereby the instructor can maintain his/her own database of feedback comments that can be easily selected from, adapted, and added to the feedback to be given to a student
- Tools for easy copying of a resources, such as an item or uploaded attachment, to multiple locations in a course environment
- New decision support tools to facilitate the set-up of roster
- A support tool to help instructors identify ways to perform management tasks as efficiently as possible in the course development phase

Guidelines for advising SCPS faculty for successful course implementation (Administration/trainers)

Johnson, D. F., (2004) A Planning and Assessment Model for Developing Effective CMS Support. *Online Journal of Distance Learning Administration. Volume VII,   Number I*

CMS Support Roles: What needs to be done?

Strategic Administration
The strategic administration of a course management system (CMS) generally rests on the shoulders of a top-level administrator and includes the planning for CMS implementation and long-term use, evaluating and selecting a CMS that provides the 'best fit' in terms of need and integration with other institutional systems, and establishing policies and procedures for CMS users. These may include guidelines for online interactions as well as technical maintenance such as archiving and backup of information. In the case of the School of Continuing and Professional Studies, this role is shared with the UVA School of Nursing. However, due to the location of the main server that houses Blackboard, the WebLearn administrator assumes the role of technical management of Blackboard.

User Support
CMS user support may include assistance with technology issues such as account activation or sign-on privileges and is usually provided through the Help Desk. The role of the Help Desk personnel is to provide a 'quick-fix' solution to the user, often over the phone or email. However, more complex needs such as online course development may require the Help Desk to develop and provide resources such as manuals, step-by-step tutorials, as well as face-to-face/hands-on training sessions. The Help Desk at SCPS provides faculty users of Blackboard with a step-by-step tutorial (online) phone or email consultation, as well as face-to-face orientation sessions for setting up a course in Blackboard

Technical Administration/CMS Administration
The technical administration of a CMS refers to the supporting and maintaining of solftware and hardware infrastructure, including database administration and management. CMS administration includes the creation of course accounts and maintenance of the organizational structure of the CMS (i.e. departments, colleges, etc). In the School of Continuing and Professional Studies, this role is assumed by the WebLearn administrators, who upon receiving an official course request form from SCPS, create and maintain course accounts and its organizational structure.

Project Development/Instructional Design
For faculty in SCPS, support for course design, content development, and the integration of learning objectives is provided by the instructional designer Dr. Stephanie Sheer. The role of the instructional designer is to provide faculty with strategies to develop "lessons and activities that follow 'best practices' models for online instruction."

Modeling Support
The 'Organizational Change Situations' model provides institutions undergoing growth or changes in the use and application of a CMS with a list of institutional priorities for evaluating the implementation of new roles and responsibilities. "…if an institution wants to emphasize training, it becomes possible to allocate the various CMS support tasks and then to identify which existing staff will focus on training, for how much of their time, and whether additional staff may be needed to support desired initiatives.

Electronic Discussion References

Tips from Instructors at Ohio State University
http://ftad.osu.edu/Publications/elecdisc/pages/tip.htm

Ohio State University: Tips from the Literature
http://ftad.osu.edu/Publications/elecdisc/pages/literat.htm

Assessment References

Johnson, D. F., (2004) A Planning and Assessment Model for Developing Effective CMS Support. *Online Journal of Distance Learning Administration. Volume VII,   Number I*

Student Support References

Course characteristics encouraging student success (students)
Brescia, W., Miller, M., Ibrahima, P., Murry, J., (2004). Orientation Practices for Effective Distributed Learning Coursework: Students Speak Their Minds. *Online Journal of Distance Learning Administration. Volume VII, Number III*

This study examined graduates students regarding their experiences and attitudes in an online learning environment:

Student Experiences:
Factors to be taken into consideration when offering an online course are: exposure to new technology, reading assignments, self-paced learning, increased personal responsibility and anxiety. Students expressed a wide range of experiences – from positive to more negative.

Challenges faced by students in an online learning environment:
- Accessibility – internet access not always available or sometimes poor; may prevent students from completing assignments or reading resources on time
- Amount of work – assignments not posted in a balanced manner; homework assigned in 'clumps'
- Writing skills - to work with class mates in an online environment – ability to write quickly, accurately
- Some students face double challenge – mastering course content along with navigating delivery methods of online course materials and resources

Coping Strategies for students:
- Orientation – some students felt they could benefit from a CMS orientation session; felt that the support provided by faculty not enough to competently participate in online learning – orientation could be separate or as part of class
- Strong support from faculty – faculty must clearly identify expectations for assignments and participation in an online course
- Communication between faculty and student is key – either on or offline;

Overall factors contributing to success for students:
- Establishing faculty presence in an online course
- Support and encouragement of faculty members
- Willingness of faculty to be open to student concerns and questions – about course content AND method of delivery

Best Practices/Criteria for distance education Resources

American Distance Education Consortium (ADEC) Guiding Principles for Distance Teaching and Learning
http://www.adec.edu/admin/papers/distance-teaching_principles.html

The Higher Learning Commission/Best practices for online course delivery
http://www.ncahigherlearningcommission.org/index.html
http://www.ncahigherlearningcommission.org/resources/electronic_degrees/

National Education Association Quality Benchmarks
http://www.nea.org/nr/nr000321.html

Quality Standards in eLearning: A Matrix of Analysis
Irvine Distance Learning Center University of California
http://www.irrodl.org/content/v3.2/frydenberg.html

7 Principles of Best Practices (based on Chickering and Ehrman)
List examples of strategies and activities for faculty
http://people.uncw.edu/murdocka/facdevt/online/7_principles.htm

American Distance Education Consortium (ADEC) Guiding Principles for Distance Teaching and Learning
http://www.adec.edu/admin/papers/distance-teaching_principles.html

National Education Association Quality Benchmarks
http://www.nea.org/nr/nr000321.html

Southern Regional Educational Board's Principles of Good Practice and Criteria for Evaluating Online Courses
http://dl.austincc.edu/faculty/SRECGoodPractice.htm
http://www.evalutech.sreb.org/criteria/online.asp

Guidelines for Establishing Interactivity in Online Courses
by Mark Mabrito
http://www.innovateonline.info/index.php?view=article&id=12

Designing Instructional Articles in Online Courses for Adult Learners
by D. Verne Morland and Herbert Bivens

http://www.innovateonline.info/index.php?view=article&id=8

IMPLEMENTING THE SEVEN PRINCIPLES: Technology as Lever
by Arthur W. Chickering and Stephen C. Ehrmann
http://www.tltgroup.org/programs/seven.html

References

Gaskill, P., Lehman, J., Lehman, K., (2002). "Maximizing the Online Environment for Professional Development". Walden University. Presentation at the California Association of Bilingual Education (CABE) Conference, San Francisco, CA.

Keefe, T. J., (2003). Using Technology to Enhance a Course: The importance of interaction. Educause Quarterly (1).

Mabrito, M. 2004. Guidelines for establishing interactivity in online courses. *Innovate* 1(2).

Miller, S., (1999). Using Instructional Theory to Facilitate Communication in Web-based Courses. *Educational Technology & Society 2(3) 1999. Available at:* http://ifets.ieee.org/periodical/vol_3_99/miller.html

Morland, D. V., Bivens, H., 2004. Designing Instructional Articles in Online Courses for Adult Learners. *Innovate* 1(2).

Sener, J., 2004. Escaping the Comparison Trap: Evaluating Online Learning on Its Own Terms. *Innovate* 1(2)

Smith, K., (1997). Preparing Faculty for Instructional Technology: From Education to Development to Creative Independence. *CAUSE/EFFECT Volume 20, Number3, Fall*.

Stiff-Williams, H., (2003). "A Look Inside Online Learning: Structures and Strategies to Promote High Quality Teaching and Learning Online. Presentation, Syllabus Conference, San Francisco, CA.

Vonderwell, S., (2004). Assessing online learning and teaching: Adapting the Minute Paper. TechTrends 48 no4 29-31 Jul/Aug