

A Constructivist Approach to Using WebCT in Teaching and Learning

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Introduction

WebCT, a web-based course management tool, has been adopted by the University System of Georgia in a state-wide initiative to supplement traditional and web-based instruction. This paper will report how faculty and students at Georgia Southwestern State University use WebCT along with other instructional technologies in teaching and learning. Emphasis will be placed upon the approach of constructivism.

How to better prepare students with the computer skills for the challenges they are going to meet in the twenty first century requires efforts from the entire campus, including administration, faculty, and staff. Whether or not a university community would like to keep up with the pace of the change of the new advancement in the field of instructional technology sometimes depends on how much the administration, faculty, and staff are willing to risk leaving their comfort zone in their offices and classrooms. Computers are widely perceived as a powerful tool for teaching higher level thinking skills and problem solving, as documented in the President's Panel on Educational Technology (1997). This is based on a constructivist approach, in which students assume the central role as an active learner to construct their own knowledge, concept bases, and skill sets in the learning process. Secretary Riley's Seven Priorities in the U.S. Department of Education Strategic Plan for 1998-2002 include preparing students to be technologically literate and pursuing lifelong learning as adults. Strong evidence from the literature has suggested that all faculties, regardless of discipline and curriculum, be encouraged to integrate educational technology into instruction.

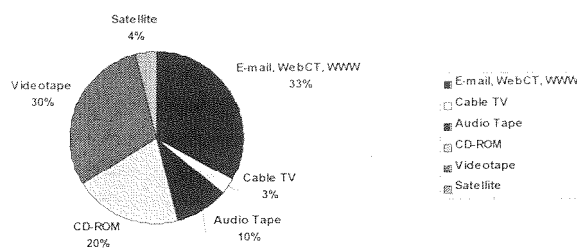
GSW WebCT Statistics

The 122 faculty and staff members who responded to faculty/staff technology assessment conducted at Georgia Southwestern State University last year indicated the most frequently used packages were Microsoft Office followed by E-mail/WWW/WebCT. It is encouraging to find that 33% of the faculty population at such a small state university has tried the Internet/WWW/e-mail including WebCT to support instruction (Figure 1). WebCT, a Web-based instruction tool, allows instructors to create an Internet interface for their courses, providing a forum for group communication through WebCT's e-mail and bulletin board capabilities. It is a course management tool adopted by the University System of Georgia in a state-wide initiative to supplement traditional and web-based instruction. At GSW,

emphases of using WebCT have been placed upon "How did we use WebCT?"

Figure 1. Use of Instructional Technology at GSW

Georgia Southwestern State University Technology Assessment Use of Technology in Classroom



and "How has WebCT changed the way we teach and our students learn?"

The GSW WebCT statistics as of March, 1999 indicate that 65 instructors, 126 courses, 1341 students have been able to use WebCT in classrooms one year after purchasing the campus site license. The approaches used by GSW include:

- identifying seed faculty from campus to give workshops,
- receiving assistance from the school deans for sign-up of the workshops,
- providing individual assistance to faculty,
- repeating workshops year around,
- inviting UGA instructors to offer special training sessions on campus,
- adopting UGA training system for GSW WebCT workshops,
- sharing statewide information with faculty,
- requesting technical support from the University System of Georgia, and
- exchanging experiences and ideas with peers from other institutions at state conferences.

Help Desk

Faculty at small state universities are always assigned full teaching loads and have too little time to attend workshops. It is difficult for faculty and staff to become confident and competent in using any computer technology without appropriate training because their professional preparation was often prior to the

introduction of current technology (Schrum & Dehoney, 1998). To reduce the anxiety, frustration, and time constraints on faculty, a "Help Desk" was established at GSW. Many major universities have relied on graduate students to offer the Help Desk services to faculty and staff. It offers graduate students opportunities for practical experience and also eases budgetary pressures at the university for hiring full-time employees for the needed service (*Chronicle of Higher Education*, February, 1999.) Once a request is received at the Help Desk at GSW, a trained graduate student or a full-time technical support specialist is sent in a timely manner to the individual's office to perform a full-scale service on site. This has helped faculty and staff who were unable to attend training sessions solve special problems with the individual assistance and support they need.

Faculty/Staff Development Workshops

Another important initiative used to promote the use of WebCT at GSW was to conduct faculty/staff development workshops. We believe exchanging ideas and experiences with peers would greatly reduce the steep learning curve in order to master a new computer technology. The U.S. Department of Education has set up a goal in its strategic plan for 1998-2002 to train at least 60% of the teachers to use computers and the Internet to help students learn by 2001. However, at the current time, only about half of faculty at GSW have experience at all with technology. Sixty-seven percent of the faculty surveyed by the *Chronicle of Higher Education* in September 1999 also cited that frustration keeping up with information technology was a major source of stress. It should be understood that acquisition of computer equipment is no guarantee of success in teaching or learning unless we know how to employ it with creativity and critical thinking in the design of new ways to exploit the power of computer technology for constructivism. Lessons learned from GSW include to:

- Allocate at least 30 percent of the computer technology budget, as suggested by U.S. Department of Education, to develop faculty development workshops,
- Make some of the training and workshops mandatory for faculty and staff to attend,
- Provide incentives for faculty and staff to attend or give workshops, and
- Give special consideration to using the credit of the faculty development workshop toward applying for tenure and promotion.

An Institution-based Technology Strategic Plan

Good practice for instructional technology proposed

by the Georgia Board of Regents (BOR) Educational Technology Principles states that we:

... must respond to and anticipate the emergence of a new world of anytime/anywhere learning with strategies and actions that apply technology effectively, promote collaboration, foster innovation, but, most importantly, provide leadership in developing the infrastructure for an age of learning.
(Muyskens, 1999)

To move the entire campus to a real constructivist-rich learning and teaching environment as specified by the President's Panel, an efficient action plan should be made to coordinate organizational, infrastructure, and instructional and management components driven by strategic, enterprise-wide objectives (Levinson & Surratt, 1999). Some major universities have been creating new offices of the Vice President for Instructional Technology for a mission to lead so-called "entrepreneurial launches" in instructional technology. Many small universities, like the one addressed in this paper, are relying on an instructional technology center to help plan, implement, and coordinate efforts across campus on the integration of instructional technology into their fundamental missions of the University.

The goals set forth by the Instructional Technology Center at GSW, a small, residential, suburban state university in the Southeastern United States in an Institution-based Technology Strategic Plan for 1999-2000 include to:

- Integrate instructional technology for all disciplines across the curriculum to enhance teaching and learning,
- Strengthen the use of instructional technology by offering faculty development workshops, and
- Promote distance learning by focusing on the use of web applications including Internet, World Wide Web (WWW), and a web-based tool of WebCT.

The mission of a university strategic plan is to help plan, implement, and coordinate efforts on the integration of instructional technology into the fundamental mission of the university. The GSW technology strategic plan was made in an attempt to base on research literature for the 21st-century needs and can be used to track progress and identify areas for improvement.