Increasing the Use of Horizon Wimba

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Submitted to:
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Table of Contents

Executive Summary

University officials at the University of North Carolina, Wilmington would like to see an increased use of the live virtual classroom tool Horizon Wimba. Currently, less than 1% of the faculty and staff delivering instruction through online courses are using this tool. University officials within Academic Affairs would like to see an increase in use of Horizon Wimba of 10% per year throughout the next five years. Information Technology Systems Division (ITSD) manages the LMS along with designing, developing, and implementing training for faculty and staff.

Data has been gathered from various sources in order to assess what is presently happening within Academic Affairs and what should be happening to reach the goal set forth. The results show that there is a lack of the necessary knowledge and skills needed by instructors, to utilize the various tools that are available within the Learning Management System (LMS) that is used to conduct online courses. The small number of Horizon Wimba users can be attributed to this lack of skills and knowledge among the faculty that currently teach online courses.

The team recommends the following solutions:

- Provide training via e-learning platform for Horizon Wimba instruction.

- Provide incentives to participate in trainings for Horizon Wimba.

- Use the Information Technology Systems Division (ITSD) webpage as a delivery tool to inform faculty and staff of innovative educational tools and trainings that are available.

A formal training conducted online, utilizing Horizon Wimba, would be the most viable solution for training faculty and staff. This solution would allow for the instructors to take the course from their home or office. This would eliminate the need for environmental resources and allow the instructors to experience a live virtual classroom just as students, which would enhance their training and experience.

Operating System

University of North Carolina, Wilmington is a public comprehensive university, one of sixteen constituent campuses of the University of North Carolina. The university strives to provide a safe, supportive, and technological progressive environment.

Academic Affairs is a division within the UNCW system. Academic Affairs is the central division for implementing the mission for the University of North Carolina at Wilmington. They are also responsible for recruiting and retaining faculty scholars, as well as overseeing all academic programs including all online courses. Academic Affairs collaborates with other divisions to support technology based instruction and promote innovation and discovery including both face to face and online instruction. **(See Appendix A for organizational chart)**

A division within Academic Affairs that assist with supporting technology based instruction and promoting innovation and discovery is Instructional Technology Systems Division (ITSD). The offices within ITSD that directly collaborate with Academic Affairs in the area of online instruction and emerging technology are "Client Services" and "E-Learning".

Client Services is responsible for the planning and delivery of technology and services to the campus community. These services include Help Desk/ User Support for initial problem reporting and resolution, desktop software training and support, personal computer maintenance and support, management of the student computing labs, and instructional and research support.

E-Learning provides instructional support and assistance to faculty and graduate students using current and emerging technologies to enhance and/or expand course content and delivery.

Both Client Services and E-learning are responsible for design, development and delivery of training for faculty and staff. However, Academic Affairs is responsible for the allocating funds in the budget for faculty and staff training as well as establishing policies and procedures for implementing academic program and initiatives.

Problem

The University of North Carolina at Wilmington is committed to improving the quality of learning for the students. Academic Affairs oversees all academic programs including all online courses. The promotion of online courses being offered at UNCW has been emphasized and growing at an exponential rate. Currently, there are 91 online courses being offered at UNCW. New technological tools such as Horizon Wimba, a live, audio and video conferencing tool, have been added to the existing LMS to enrich student experiences in an online learning environment. Academic Affairs aims to improve student learning experiences in online courses and asked the Information Technology Systems Division (ITSD) to increase the use of Horizon Wimba in online courses. However, survey data shows that as of spring 2007, out of 91 courses being offered using LMS, less than 1% utilize the live classroom function, Horizon Wimba. ITSD would like to increase this number by 10% each year until 50% of the online courses being offered are using Horizon Wimba by year of 2012. ITSD will use an end of semester survey to identify the number of courses that utilized Horizon Wimba and to assess student perception of online learning experiences.

Currently faculty and staff who provide instruction online have the option of participating in formal training for WebCT course management system. When faculty and staff attend WebCT trainings through ITSD, they are

informed of the Horizon Wimba, but they receive no training on these tools. There are no other training methods currently offered through ITSD for Horizon Wimba usage.

Analysis of the System: How the System is Operating Now

Data Collection Methods

Data was collected using a variety of methods. First, interviews were conducted with the staff of Client Services and E-Learning to assess what is presently happening within the system and what they felt were the causes of current problem

Course listings were also analyzed to assess the number of courses currently being taught online. Through the analysis of these documents, a list of instructors currently teaching online courses was created. Surveys were then conducted among the faculty who currently teach online courses to assess the number of online courses that currently utilize Horizon Wimba. This survey was also conducted to assess why faculty were not using Horizon Wimba, if they were interested in using Horizon Wimba, and whether or not they felt prepared to use the tool.

Remedy logs, from the Technical Assistance Center (TAC)*,* were also analyzed to measure the amount of technical support that the current Horizon Wimba users requested over the past year.

Results of Operating System Analysis

Academic Affair's objectives are to promote an optimal learning experience for students and provide support for faculty and staff for technology based instruction and learning.

Every faculty and staff member is provided a WebCT course shell for every class that they are teaching. This allows the faculty and staff to have the option to develop a fully online or blended course. Trainings are offered by ITSD to increase the knowledge and skills of faculty and staff for the current WebCT, the LMS system and tools that are available. Faculty and staff who provide instruction online have the option of participating in formal training for WebCT course management system. When faculty and staff opt to attend WebCT trainings through ITSD, they are informed of the Horizon Wimba, but they receive no training on these tools. However, faculty members who have been teaching online courses for several years do not attend these formal WebCT training unless they are informed of major platform changes. This is evident from the faculty surveys which show that 53% of the faculty and staff who teach online are not aware of the Horizon Wimba tools. If they are aware they do not know how to use the tool because of lack of training. Currently if an instructor is interested in learning how to use Horizon Wimba, they are directed to the Horizon Wimba website for demonstration and tutorials.

There are several fixed constraints in the system. The human resources for design, development, and delivery of training as well as support of infrastructure are limited. There is one full time employee within the system who designs, develops, and implements all training regarding emerging technology and the LMS system. There is also one full time employee who provides server maintenance and management for the LMS system. In addition, there has been limited budget for design, development and delivery of training programs.

Analysis of the System: How the System should be Operating

Data Collection Methods

5

Interviews were conducted with ITSD staff, in order to identify ideal conditions in regards to the use of Horizon Wimba in online and blended courses. Instructors currently teaching online courses were surveyed to assess how and under what condition they would have used Wimba tools

In order to provide a technologically progressive environment, faculty and staff should have been informed of the new tools once they were incorporated in their WebCT course Management tools. In addition, faculty should have been convinced that the new tools were adopted to improve student and faculty performance in online learning. A survey should have been conducted to identify faculties' knowledge and skills regarding the new tools. Academic Affairs should have posted newly adopted emerging technology on their Web site. Once they have adopted the technology, training should have been designed and developed to assist the faculty and staff.

There should have been training available for faculty and staff who are interested in using the various tools that are available to them within the LMS. When a faculty or staff member expresses interest in using Horizon Wimba, they should have been informed of the training schedule that the University offers.

In order to increase participation among the faculty and staff, Academic Affairs should have allocated a portion of their budget for mini grants. These mini-grants should have been awarded to faculty who will use Horizon Wimba on a regular basis within their online course. Faculty and staff who receive these mini-grants would have to attend mandatory trainings. Also, a portion of the budget should have been allocated to purchase equipment that should have been used as incentives to entice faculty and staff to attend trainings. Incentives could have constituted of software and hardware that would help support technology based instruction and promotes innovation.

The number of employees within ITSD that are directly serving the faculty in regards to new technologies would remain the same. Academic Affair's budget should have changed slightly to offer mini grants to faculty and also the purchase of equipment for faculty and staff incentives.

Gap Analysis

Probable Cause of the Problem

As Appendix C shows while faculty should have been informed of the new tools, there is no system in place to inform the faculty of the new technologies. So, it is very likely that the lack of knowledge of tools and techniques is the cause of the problem, which can be supported by the fact that only 1% of faculty are using Horizon Wimba.

Survey results from the faculty revealed that a lack of training is the main reason that they are not utilizing Horizon Wimba. 86% of those surveyed stated that they would be interested in using Horizon Wimba. 43% stated they would like to receive Horizon Wimba training while 7% stated that they do not feel comfortable using Horizon Wimba. Over half of the faculty and staff interested in using Horizon Wimba do not have the necessary skills and knowledge to truly utilize the tool.

Currently there is no system in place to entice faculty and staff to utilize Horizon Wimba. As the data indicates over half of the faculty and staff are interested in using these tools. Yet there are no incentives in place to help promote the use of such tools. By offering the right incentives to faculty and staff Academic Affaires should begin to see the increase usage of Horizon Wimba that the University is asking for.

Possible Solutions

6

A system of communication should be put in places so the faculty can access new information through ITSD webpage, an e-mail, or a newsletter.

A job aid is another possible solution. By creating a job aid specifically about Horizon Wimba, faculty will have resources they can reference for minor technical hurdles. The job aids could be available on the ITSD web page. Multiple job aids could be created for beginners, intermediated, and advanced users.

Training within the LMS to teach faculty and staff about Horizon Wimba is another solution. Many people learn best by doing, by creating a staff development within the LMS utilizing Horizon Wimba, faculty and staff will obtain a first hand look at what Horizon Wimba can add to their own course. This also gives the faulty the chance to attend a staff development from the comfort of their office or home.

Training faculty and staff using traditional face to face staff development will not only assist instructors with instruction in Wimba but will allow for on hand technical support.

Incentives such as software, flash drives, iPod nanos, etc, should be made available for faculty and staff to attend trainings regarding Horizon Wimba. Also, mini-grants could be used as an incentive for instructors who are willing to utilized Horizon Wimba on a full time basis.

A self-instructional tutorial could be created and linked to the support webpage by ITSD which includes other tutorials for the LMS. This would allow instructors the freedom to take the course at their convenience

Each department could elect a member to attend training on Horizon Wimba. This person would also be trained to coach the rest of the department on Horizon Wimba's use and functions. The Dean of each school or chair of each department would facilitate this. This would allow for one-on-one training to meet the needs of each instructor. Not only would the instructors have the ability to have a person within their department coaching them, they would have access to a person to assist them if they had immediate questions regarding the functions of Horizon Wimba.

All instruction would be designed, developed, and implemented by staff from the E-learning division.

Analysis of the Solutions

There needs to be a system to disseminate information to the faculties. This could be done numerous ways. The Academic Departments could elect a person to contact ITSD for updates regarding emerging technologies. This person would then disseminate this information at their monthly departmental meetings. ITSD could e-mail a newsletter to the faculty regarding updates and training information. With changing faculty, this may not be a viable option since some people may be overlooked. Another way to disseminate information to the faculty would be to use the ITSD Webpage. The ITSD webpage includes faculty support for the LMS. A new menu item could be created to inform faculty of the new technology that is available for use.

A job aid could assist the faculty with Horizon Wimba but since many of the faculty have not been exposed to Horizon Wimba then a job aid would best be suited for faculty that have the training or pre-requisite skills. A job aid would be suitable for faculty that have already received the training and just need a refresher on the tools or procedures for navigating through Horizon Wimba. If the online instructors are aware that there are instructions available for them anytime, they may be more inclined to use Horizon Wimba.

Since many faculties lack the skills to use Horizon Wimba, trainings on new technologies need to be developed. Formal training within the LMS is a viable solution for training faculty to use Horizon Wimba.

This solution would allow instructors to take the course from their home or office. This would eliminate the need of reserving a room and making sure there is enough equipment for the instructors to use. Also, this format would allow the instructors to use Horizon Wimba as if they were actually performing the task in a live class. The instructor would require access to a course shell which would have to be designed and developed. This course shell would be able to be reused for multiple sessions.

Face-to-face training is another solution. In order to facilitate this type of training, a room with the appropriate equipment and headsets would have to be reserved for the faculty, the availability of the room and equipment maybe an issue. The face-to-face training would provide on hand support personnel for the faculty if they encounter any technical difficulties. This method of training would not allow for a real world experience since the faculty who are taking the training would all be in the same room together. The advantages to a face-to-face staff development would be that the instructor would be available for solving any technical difficulties. A disadvantage would be that the instructors would not receive the full effect of Horizon Wimba as they would if they were trying this from their office or home.

Mini-grants and incentives would be additional with either the e-training or the face to face training. A number of grants will be available for faculty who will attend online training for Horizon Wimba. Eligible faculty must attend all trainings and must utilize Horizon Wimba for a substantial portion (50%) of the material presented online.

Coaching is also an option for the training. Each department could send one representative for training. This faculty member would then be required to meet with their department to provide one-on-one coaching. The same constraints apply to training the "trainers" as mention previously. There is also the issue of scheduling time to meet with their department to disseminate the information. This could be a potential problem in that there is neither accountability nor a guarantee that these trainers will follow through.

Instructional Development and Delivery Capabilities

Currently, designing and delivering instructional trainings is readily accessible. Academic Affairs employs two people in the E-Learning department that work together to facilitate this type of instruction. The e-Learning Coordinator currently designs, develops, and implements all staff trainings regarding the LMS online platform. Assistance is provided by Faculty Instructional Support, this person sets up the courses in the LMS that the e-Learning Coordinator needs. Both of these people decide when and where trainings will be conducted.

Time would need to be a consideration since the training is only in the design stage. Special efforts will be made by ITSD to accommodate faculty. Trainings will be scheduled several days of the week and morning, early-afternoon, late-afternoon, and evening. Another consideration would be the amount of faculty and staff that can be properly trained with environmental constraints being taken into account. ITSD is responsible for securing any training space that may be needed. There are two computer labs set up for training purposes. Since they are concerned with the amount of faculty and staff using Horizon Wimba per semester, by limiting the number of trainees ITSD can monitor how the server will react, they will want to examine how many instructors are using Horizon Wimba as a method of delivery. This would need to be decided by Client Services as to the number of instructors they would want to train which will directly affect the increase in the amount of technical support. Client Services will also need to take into account their budget and make sure the appropriate funding is in place for the necessary training.

Comparing Solutions (Table Appendix D)

Communication could be conducted through e-mail, newsletter, webpage, or face-to-face. The most viable measure is through their webpage. This method could be updated weekly and viewed by faculty and staff at their convenience.

Because a job aid would require the faculty and staff to have pre-requisite skills this would not be the most viable solution to instruct faculty in the procedures for Horizon Wimba use.

Faculties that teach online courses are not receiving the new knowledge and skills they need, for a progressive course, in an efficient manner. ITSD needs to create current trainings that focus on the power tools available within the LMS such as Horizon Wimba. This training could be conducted through the LMS. Time of course will be a negative, but the environmental considerations, organizational change, space/equipment requirements, cost, and benefit/loss organization will all be neutral. The benefit/loss individual is definitely a positive. By conducting the training within the LMS for Horizon Wimba, instructors will have a first hand look at all of the available functions Horizon Wimba has to offer. Instructors will also be able to check and update their computers to meet the technical requirements of Horizon Wimba. The downside to this format is that there would not be personnel readily available to assist the instructors with any technical difficulties that they may encounter.

Face-to-Face training also has a positive for the benefit/loss to the individual. By having a face-to-face training any question can be immediately answered. The advantage over this compared to the training through the LMS is any technical issues can be addressed and resolved right away. Unfortunately the face-to-face training has many negatives. Scheduling a time when the environmental resources are available along with the availability of the instructors and trainers may be difficult. Also, there is the consideration of enough resources such as headsets with microphones to accommodate face-to-face training.

The Self-Instructional Training is more or less neutral. Time is a negative but that is the case with any training. Although there are no environmental considerations, organizational changes, space/equipment requirements, there is a loss with the benefits/loss for the individual. Motivation is a very big consideration with Self-Instructional Trainings. Introducing new technology can be very challenging, if a person can not follow along with the Self-Instructional Training they may opt out of using Horizon Wimba altogether.

Coaching is by far the most positive of all of our solutions. Although Coaching may look the best on paper the same constraints apply to time as mention previously, but these department members have to receive training whether it is face-to-face or online. At this point Client Services would trust that these members would find time to meet with their department to disseminate the information. This could be a potential problem in that there is neither accountability nor a guarantee that these trainers will follow through.

Recommended Solution

To reach the stated increase of 10% each year until 50% of the online courses being offered are using Horizon Wimba by year of 2012, faculty need to be trained to utilize the new technologies. A formal training using the LMS would be the most viable solution for training faculty to use Horizon Wimba. This solution would allow for the instructors to take the course from their home or office. This would eliminate the need for having to reserve a room and making sure there is enough equipment available such as headsets with microphones for the instructors. Also, this format would allow the instructors to use Horizon Wimba as if they were actually performing the task in a live class.

The training will take place in the LMS. The course will be designed in the same fashion as a typical online class. It will be an instructor led course, the "students" will have the chance to participate in a real time online
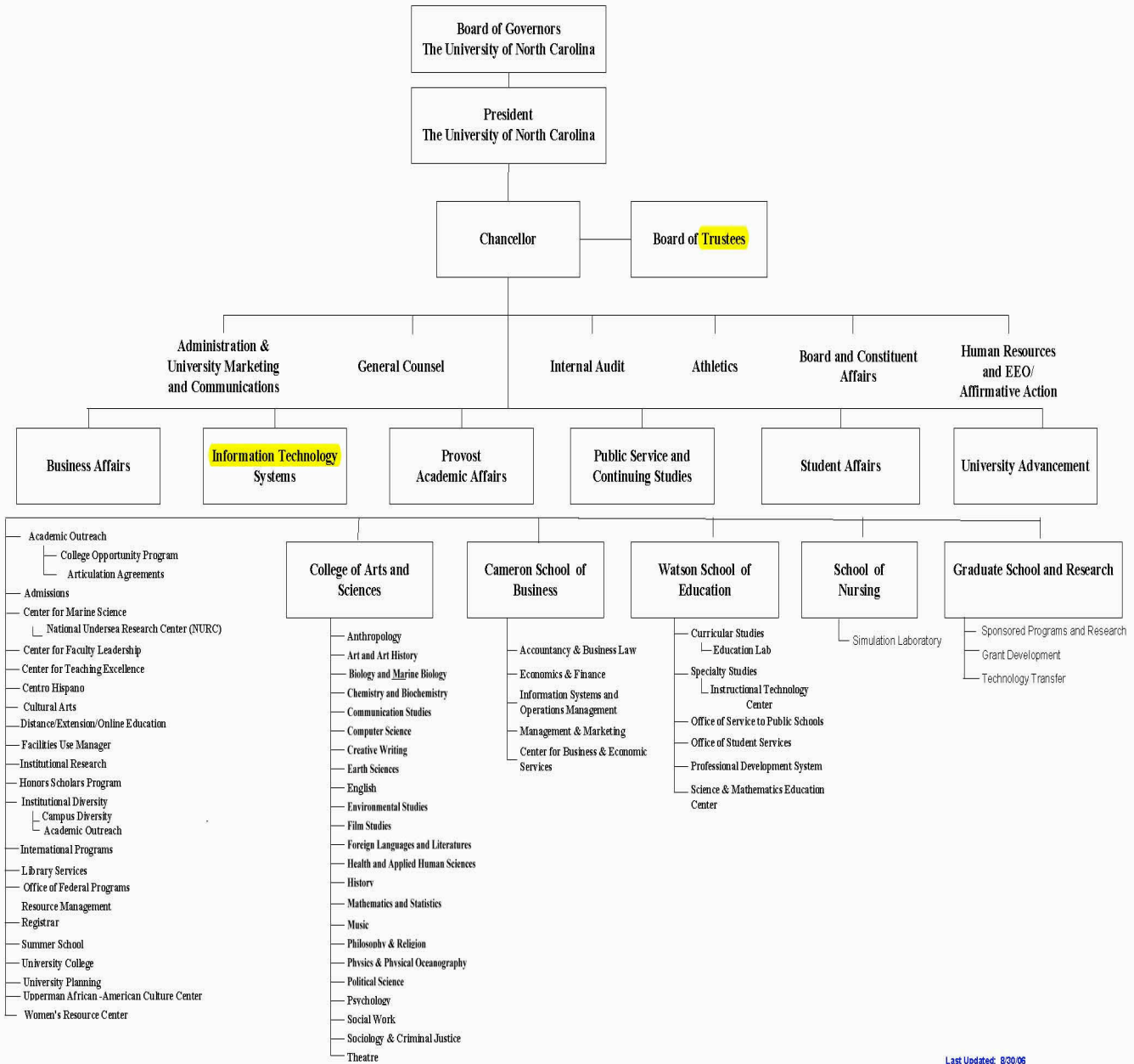
discussion going over the benefits of Horizon Wimba. The "students" will get a first hand look at Wimba, while the instructor goes over all of the functions associated with Wimba. Although the faculty and staff would be students, they would have access to Horizon Wimba as though they were presenters. This would enable them to learn the following:

- **Multi-way audio** - Personal instruction and conversation with real-time voice, instructors and students can communicate as if they were in a face-to-face class. Live Classroom offers a telephone dial-in feature that allows users to participate when traveling, and even acts as a back-up if network problems occur.

- **Public & private text chat** - The chat messaging allows students to communicate textually.

- **Flexible content area** - Show content such as PowerPoint, Word, Excel, HTML, WebPages, images, movie clips, PDF, Flash, CMS pages, and others.

- **Electronic whiteboard and polls, quizzes, and surveys** – Interactive whiteboard exercises.

- **Application sharing** - Application sharing allows you to work on any application, and have everyone logged-in follow along. Control can also be passed to the students.

- **Archive presentations**

Since Horizon Wimba is designed for a multitude of technology levels the "students" should be comfortable using this new function. By allowing the "students" to see the advantages of having a live component of their online course through their training they should be more motivated to try it out in their own classes. Also because of the archiving function within Wimba "students" will be able to access this training as a job aid. If at anytime a function is forgotten all a "student" will have to do is log in and listen to the desired section.

The team also recommends that ITSD creates a menu item or "news" section on their webpage in order to disseminate information about innovative tools that the University has purchased or are "trying out" so that the faculty and staff will be able to give their input from an more informative point of view.

Organization Chart of
Division of Academic Affairs
University of North Carolina Wilmington

Board of Governors
The University of North Carolina

President
The University of North Carolina

Chancellor

Board of Trustees

Administration &
University Marketing
and Communications

General Counsel

Internal Audit

Athletics

Board and Constituent
Affairs

Human Resources
and EEO/
Affirmative Action

Business Affairs

Information Technology
Systems

Provost
Academic Affairs

Public Service and
Continuing Studies

Student Affairs

University Advancement

- Academic Outreach
  - College Opportunity Program
  - Articulation Agreements
- Admissions
- Center for Marine Science
  - National Undersea Research Center (NURC)
- Center for Faculty Leadership
- Center for Teaching Excellence
- Centro Hispano
- Cultural Arts
- Distance/Extension/Online Education
- Facilities Use Manager
- Institutional Research
- Honors Scholars Program
- Institutional Diversity
  - Campus Diversity
  - Academic Outreach
- International Programs
- Library Services
- Office of Federal Programs
- Resource Management
- Registrar
- Summer School
- University College
- University Planning
- Upperman African-American Culture Center
- Women's Resource Center

College of Arts and
Sciences

- Anthropology
- Art and Art History
- Biology and Marine Biology
- Chemistry and Biochemistry
- Communication Studies
- Computer Science
- Creative Writing
- Earth Sciences
- English
- Environmental Studies
- Film Studies
- Foreign Languages and Literatures
- Health and Applied Human Sciences
- History
- Mathematics and Statistics
- Music
- Philosophy & Religion
- Physics & Physical Oceanography
- Political Science
- Psychology
- Social Work
- Sociology & Criminal Justice
- Theatre

Cameron School of
Business

- Accountancy & Business Law
- Economics & Finance
- Information Systems and Operations Management
- Management & Marketing
- Center for Business & Economic Services

Watson School of
Education

- Curricular Studies
  - Education Lab
- Specialty Studies
  - Instructional Technology Center
- Office of Service to Public Schools
- Office of Student Services
- Professional Development System
- Science & Mathematics Education Center

School of
Nursing

- Simulation Laboratory

Graduate School and Research

- Sponsored Programs and Research
- Grant Development
- Technology Transfer

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Appendix B

Are you currently teaching a 100% on line class using the WebCT/Blackboard platform in either Campus Edition or Vista?	50%
If yes are you using Horizon Wimba (a fully featured live virtual classroom that supports audio, application sharing, and content display)?	40%
If you answered no to question # 2 please provide a reason.	36% didn't know it was available 7 % doesn't feel comfortable
Would you be interested in using Horizon Wimba?	86% would be interested in using Wimba
Do you think you will need training using Horizon Wimba?	43% stated they would be interested in training

Gap Analysis Chart

What is happening	What should be happening	Gaps
Information from ITSD about innovative technology is not reaching the faculty	There should be an open line of communication between ITSD and the faculty	Lack of communication
1% of the faculty using e-learning are using Horizon Wimba	There should be an increase each year by 10% of the faculty using Horizon Wimba	There is no promotion about new technologies
There is no training for Horizon Wimba	There should be training at least once a semester for Horizon Wimba	There is no training for Horizon Wimba offered

Appendix D

Comparing the Solutions

Possible Solutions	Time	Environmental Considerations	Organizational Change	Space Equipment Requirements	Cost	Benefit Loss Indiv.	Benefit Loss Organization
Communication	-	-	-	0/-	0	-	0
Job Aide	-	0	0	0	0	-	0
E-Learning training	-	0	0	0	0	+	0
Face-to Face training	-	-	-	-	0	+	0
Self-Instructional Training	-	0	0	0	0	-	0
Coaching	-	-	+	+	0	+	0

+ = positive influence

- = negative influence

0 = neutral