

# Managing Faculty Support: Expectations and Change in the Classroom

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## ABSTRACT

This paper will focus on the experience of instructional technology support in implementing change via a faculty advisory committee and other methodologies for customer input. The paper will emphasize key factors in the success of the program including: increased faculty input in instructional support issues; visible improvements to support infrastructure as a direct result of committee input; and a sense of shared responsibility in decision making for both faculty and support professionals. The paper also contrasts the faculty advisory committee approach with other mechanisms used on the University of San Diego campus for faculty input.

## Categories and Subject Descriptors

K.6.1 [Management of Computing and Information Systems]: Project and People Management – *management techniques; Strategic Information Systems Planning.*

**General Terms:** Management, Performance, Human Factors.

## Keywords

Distributed learning, WebCT, shared management, distance learning, systems management, customer relations management

## 1. INTRODUCTION

The University of San Diego uses WebCT as its primary distributed learning system. While a small number of graduate professional programs use the tool in a fully online environment, the vast majority of the courses supported utilize WebCT as a key component in traditional face to face class settings. (Of approximately 720 courses, about 30 involve true distance learning.)

Central training and support for not only WebCT but also a variety of other tools and facilities that faculty use in conjunction with distributed learning involves not only tutorial training sessions but also individualized support over a wide variety of disciplines. Changes and upgrades to such support tools and even course training design are challenging issues for information technology support staff. System and classroom facility upgrades and software improvements, as welcome as the increased

functionality may be, can be disconcerting to faculty; thus management of customer expectations is essential.

This paper will focus on the experience of instructional technology support in implementing change via the faculty advisory committee and will emphasize key factors in the success of the program including: increased faculty input in instructional support issues; visible improvements to support infrastructure as a direct result of committee input; and a sense of shared responsibility in decision making for both faculty and support professionals. The paper will also contrast the faculty advisory committee approach with other mechanisms used on the University of San Diego campus for faculty input.

## 2. HISTORICAL PERSPECTIVE

Distributed learning systems got their start on our campus in 1998 when Academic Computing (now Academic Technology Services) first adopted the WebCT system as the preferred choice for a campus wide course management tool. Oddly enough, the decision about the appropriate distance learning platform at the university was not broadly representative of faculty. While a number of faculty from the various schools and colleges had suggested that a course management tool would benefit not only distance learning initiatives but also general classroom teaching, the decision regarding the implementation of a distributed learning platform was driven by the needs of a particular graduate program – the Master of Science in Global Leadership. As a result, while certainly faculty were involved in the recommendation process, the decision regarding a particular platform was left to a relatively small group of IT support administrators and faculty within the School of Business. Without dwelling on the details, I think it is fair to characterize the process as fairly political with faculty and IT support (at least on the decision team) preferring WebCT, and administrators of the MSGL program advocating a second platform – Lotus Learning Space. The process left the Provost in a bit of a quandary with the result that both platforms were purchased! WebCT would be the campus wide platform and Learning Space would support the MSGL program. From the information technology support point of view, this was not an ideal solution but one that all concerned thought would meet faculty and program needs.

Campus wide support for WebCT since that time has remained fairly constant with three primary central IT support players and a number of local experts. A server administrator, a training and support specialist and the Director of Academic Computing provide the primary information support for the central management, implementation, and training for the system. Since then, the program has expanded each semester, and gone through many upgrades and revisions.

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However, in order to design an efficient and effective architecture to support faculty in use of these instructional tools across various schools and a college of Arts and Sciences, central information technology support must rely upon experts in the various academic areas. The tool may be centrally supported, but its use is highly decentralized and must be tailored to various academic needs and teaching styles. Thus, we needed to pull together a lot of expertise and talents. Information Technology Services realized that we were functioning in a highly decentralized environment with technology changing rapidly, all bringing about additional complexity in the infrastructure. This recognition highlighted the necessity for quickly reacting to such conditions.

The first line of action was to create a training program that supported faculty, staff and students interested in using WebCT. This was accomplished by combining that training process with the tutorial program for standard office applications begun in the mid 1990s. At that time, IT teamed with Human Resources and offered classes on a variety of academic support tools, statistical programs, and business software such as Word and Excel as well as HTML design and Email programs. Later, on ITS' own initiative, the training sessions expanded to include graphic and web design tools and, of course, WebCT. WebCT was one of the more popular of the training tutorials offered and the WebCT Advisory Committee initially arose out of these tutorials.

In the early years (1998-2000) of WebCT, as IT offered more half day and full time WebCT training sessions for interested faculty, we received numerous ideas for improving support and providing the campus with excellence in service. Finally in Spring 2001, we formalized this information and opinion gathering process by inviting all WebCT users to meetings generally held during the lunch break of the WebCT training sessions. This group constitutes the WebCT Advisory Committee and the program has been a great success.

### **3. WebCT ADVISORY GROUP SUCCESS**

What the WebCT advisory committee offers the campus is a forum for sharing ideas about distributed learning and teaching as well as a structure for Information Technology Services to use to solicit ideas for policy and procedures regarding the use of campus wide learning tools.

The WebCT advisory committee recommends policy and procedures for the use of its course management systems (WebCT) and central support tools. While the advisory committee is a volunteer group, it is remarkably responsive and provides valuable insight for support staff in setting goals and expectations. It helps prioritize tutorial training and support scheduling as well as software and system upgrades not only for WebCT but also for teaching labs. Committee input, particularly as it has a direct faculty and instructional focus, also provides leverage to convince administration of needs and improvements such as hardware upgrades and software acquisition.

#### **3.1 System Upgrade Implementation**

In the spring of 2003, the lead technology support analyst for the system along with the primary administrator for the system (one of the authors) presented to the group a review of usage trends and anticipated growth including anticipated new programs with an online focus. The faculty unanimously endorsed a system upgrade to a new platform. Armed with that input, the director was able to utilize funds to purchase a new server and consult with the committee over how best to implement the new system

with minimal disruptive impact on the user community. The change-over has proceeded smoothly -- thanks in large part to the responsiveness of information technology staff to the needs of faculty as expressed in the advisory committee. In this case, the committee had a direct impact on funding priorities.

But the WebCT advisory committee has a broad range of experience as well as interest in technology; and, indeed, those faculty who attend the WebCT Advisory meetings and training session are among the more knowledgeable users of computing technology in the classroom. As a result, they are engaged in issues other than just distance delivery systems and they provide input on lab management issues and training needs for IT.

#### **3.2 Faculty Technology Showcase**

This past fall, at one meeting of the group, the discussion revolved around the need to showcase technology features of WebCT to the faculty at large. While the focus of the discussion was on WebCT, faculty expressed rather strong views on the issue. As a result, this past March, and with the help of one of the meeting attendees, Instructional Technology Services partnered with the Center for Learning and Teaching at USD to co-sponsor a half day "Faculty Technology Showcase" (with lunch provided, of course) where faculty volunteers made presentations on their use of digital technology in the classroom. While the presentations involved a variety of perspectives and application in technology, many of the presenters included a discussion of their use of WebCT and how it had positively impacted the teaching experience. It was a very popular event and will now become an annual affair. The authors mention this as one example of how the WebCT Advisory Committee enhances how information technology impacts teaching and learning in a broader context.

#### **3.3 Promoting Understanding**

Finally, and perhaps one of its most important achievements, the WebCT advisory group's diversity of faculty and support professionals promotes a greater understanding of the teaching and learning process both in distance and face to face learning environments. As an example, the discussion process just this past fall revolving around the WebCT platform upgrade implementation mentioned previously was particularly successful in enlightening information technology support staff as well as more traditional teaching faculty about the significantly different needs and time constraints that face those who teach courses in an online environment. Through this discussion, the group was able to reach a consensus regarding how best to effect the much needed hardware upgrade and also accommodate programs that do not follow the normal academic calendar paradigm.

Thus, working with the WebCT advisory group, the central instructional technology support team has implanted a strategy to help and support faculty across the campus, leveraging local faculty support within a centralized training program.

While the main structure of the support for WebCT has remained constant with the same basic three individuals providing central implementation, maintenance, training and support, the WebCT advisory membership naturally consists of departmental mentors who provide help and support to the faculty within the various departments or schools. The synergy developed through this group effort has proven to be a valuable change agent for improved service both at the central IT and school or departmental support level.

## 4. PROGRESS AND FUTURE CHANGES

Instructional Technology Services continues the training workshops for the new and existing faculty who wish to incorporate WebCT in their teaching, and we conduct training for specific cohorts with focus on special needs. The duration and scope of the training varies depending on the needs, level of technical expertise, and familiarity with similar products. After many restructuring phases, instructional training for WebCT includes an introductory format followed up with a focus on core modules (Student management, Content development and so forth).

We even grew beyond the scope of support of the faculty with existing programs, to where new cohorts flourished bringing about excitement and challenges. New strategies had to have been implemented to support the targeted constituents. As a result, program coordinators and assistants became involved in support of WebCT. Hence we branched out even more. We offered "train the trainers" sessions, thus encouraging more communication and documentation.

The most current change in this wide range of support involves the Master of Science in Global Leadership program (MSGSL) that offers fully online courses. With the help of instructional technology services, the MSGSL program is converting its Learning Space course modules into WebCT. With this new project, there is not only increased WebCT support and training required, but also considerable support in migrating the courseware to a new platform.

Not only is this new addition a conversion challenge, it also brought about a whole new set of support issues. Both local and MSGSL instructional support professionals are in the process of converting the program over the next year. Some of the teachers and students are taking or teaching courses in WebCT while completing another one in Learning Space. This has caused confusion and many obstacles in what should be a transparent use of technology in teaching. Instructional support staff are committed to finding new ways to make this transition as seamless as possible.

But how does the WebCT advisory group structure compare or relate to other mechanisms used at USD to solicit and encourage faculty input?

## 5. OTHER ADVISORY MECHANISMS

While the faculty advisory committee works well for our WebCT services and lab management, there are other mechanisms ITS employs for faculty input and guidance in the area of classroom media and computing improvements.

### 5.1 Technology in the Classrooms

Outfitting classrooms -- not to mention maintaining and supporting classrooms -- with computing and media equipment is a challenge fraught with departmental politics and funding complexities.

Up until the year 2000, USD had an academic computing committee that included the Director of Media Services and, among other charges, this committee addressed classroom technology improvements. Information Technology Services has undergone a reorganization since that time and the former Director of Media Services position remained vacant until this year. This has made the task of coordinating classroom

technology support even more challenging. While the Academic Computing committee is sorely missed, it was effective in the area of improved classroom technology only in the sense that it advocated and made a strong case for base funding for improvements in classroom technology. It was successful in securing those funds and they are used to slowly but surely bring media and technology classrooms to all areas of the campus.

To a great extent, the mechanisms used for faculty input for classroom improvements are localized within a given department or school. Because of the differences in discipline needs for technology, the technique so far implemented at USD has been to work with groups of faculty who have particular technology needs for a group of classrooms. Perhaps this is a 'faculty advisory committee' with a localized face!

Different discipline needs drive the technology classroom design process. As one of the authors has pointed out in another paper, "the successful use of information technology in the classroom depends more on the synergy between teacher, student and the learning context than on the technology itself. The use of technology -- as the primary vehicle for teaching (distance learning) or as an adjunct to the more traditional classroom -- is effective only insofar as it addresses this synergy. Second, ... one under-appreciated factor influencing teachers, students and learning contexts is the discipline itself, in a way that goes beyond simply paying appropriate attention to learning (or teaching) styles." [1]

At USD, while classrooms are scheduled centrally, academic departments have their favorite or "pet" classrooms and usually have a fair idea about how they want them configured. Of course, from the Instructional Technology Services perspective, support staff would like all media and technology classrooms to have an easy to use and common interface. Faculty members, in general, also recognize the value of standard classroom setups so that they do not have to adapt to a variety of user interfaces. Nevertheless computer and media classroom planning and design involves not just faculty and instructional technology support, it also must include key infrastructure support areas such as facilities management, telecommunications, and indeed public safety! In fact, the "Classroom Design Manual" [University of Maryland, 3rd edition] underscores the importance of involving all key constituents in the design and planning process:

"...Membership on the planning team should be diverse and include representatives from academic affairs and/or financial services, facilities planning office, scheduling, ... instructional media services, computing services ... and the faculty and student body." [2]

The reality, at least in the past few years at our institution, is that significant classroom improvements are often opportunistic and facilitated in an ad-hoc manner. In some cases, the improvements have been successful and, frankly, in other cases disastrous. Two examples illustrate this point at our institution. The success story is the new Science facility just completed in late Spring 2003. From the beginning, there was a faculty 'shepherd' for the building who coordinated with the contractors, fellow science faculty, USD's facilities management, instructional technology and desktop support services to plan, research, design and implement the general use as well as laboratory technology classrooms in the new science center. There was a good deal of discussion and compromise on design issues particularly as they related to

building budget, but, in the end, the working relationships built through this process resulted in a first rate facility with easy to use technology incorporating SmartBoards and AMX controls in the general classrooms.

The second and, to put it mildly, less successful classroom design process involves a new Kroc Center for Peace and Justice that was competed in Fall, 2002. In this case, faculty were involved in the design process in the early stages of the building design, but in some instances, these were not the faculty who eventually inhabited the building. The faculty ideas were well grounded in the needs for their discipline, but due to the lack of leadership in the Media Services area at the time (recall this position was vacant), there was insufficient design input and guidance in the actual classroom design. As a result, the audio-visual contractors who implemented the system were left to their own designs -- primarily in hotel conference and business settings. The resulting systems were truly a source of frustration for faculty and students using the facility. The classroom design was more suited to a conference center with on-site media assistants and not at all user friendly for faculty and students. In fact, one of the first things the new Director of Instructional Technology Services did upon arrival at USD was to advocate for funding to replace the complex (but admittedly quite flexible) control scheme with Smart Panel controls in each classroom.

## 5.2 Managing Teaching Labs: Upgrade and Software Challenges

Yet another tact is used for faculty consultation in lab management and improvements. Information Technology Services manages 5 public labs, a student video production lab and 4 lab teaching classrooms. In this area, the faculty who reserve and use the teaching labs provide the primary input for upgrade, maintenance and improvement to the facilities. While in the past, the aforementioned academic computing committee did provide input for policy and management issues, there have only been minor policy changes in lab management over the past several years.

Faculty are most concerned about operating system upgrades and the adequate availability of specific software applications in the public labs. The primary challenge in the public labs is that the installed software base must accommodate a variety of very different disciplinary needs ranging from computer programming languages through statistics packages, graphic arts tools, symbolic mathematics and engineering design tools, and support for foreign language. Of course, operating system upgrades always affect at least some older software applications and faculty using these older tools either need to make a case for delaying a proposed OS upgrade or find alternative software to meet their teaching needs.

In the case of OS or software upgrades, Academic Technology Services will solicit faculty as well as desktop services support advice and input via an email list and online discussion. This is in addition to solicited input from the WebCT advisory Committee -- a group that represents a significant percentage of the faculty using the teaching labs. Subsequent to email postings, a general faculty meeting for interested faculty and support staff (with the obligatory lunch provided :-)) determines the exact timing and implementation of the proposed improvements. This is typically a process that encompasses a good part of a regular semester.

Yet another increasing area of concern in public labs is desktop and network security. Our campus does not yet have a

mechanism in place for network authentication (Kerberos or other commercially available product). This is an area that is being addressed by network services but, so far, is not seeking faculty input. This points to a need on campus for a broadly representative central IT planning committee similar to the former academic computing committee but with broader representation. It would be the responsibility of this committee to discuss Information Technology policies and issues particularly as they affect the teaching mission of the university.

The goal of both faculty and information technology services staff is the adequate provisioning of software applications required for teaching and learning as well as easy and ready access to those tools.

## 6. CONCLUSIONS

Information Technology Services is fortunate to have the support of higher management and active participation of key faculty members who have been the driving force on the use of information technology on campus. Needless to say, this hasn't come easily. Instructional support professionals are quite talented in the art of handling faculty temperaments and predilections along the way. The most noteworthy key to our success has been communication -- a constant yet always diplomatic rapport with the faculty.

Instructional Technology Services continues to search for innovative ways to support faculty as technology offers new challenges. It is important to uncover strategies to better assist faculty who are interested in using technology in teaching but need help with basic technology skills. While help desk support, web based and other online documentation assist in this learning process, the importance of one-to-one assistance and training for faculty can not be understated. In addition, Instructional Technology Services must do a better job of dealing with impediments that hamper teaching with technology in the classrooms.

It is the responsibility of the support centers to encourage and educate faculty in order to leverage the use of technology in the classroom. One such way to reach out to the faculty that may result in some valuable findings is to conduct surveys to assess faculty's level of expertise and expectations in use of technology on campus. This can be done with relatively modest efforts, by conducting targeted surveys. Collection of such data can help determine needs of wide range of users, and seek suggestions from the actual constituents to revise or develop an effective system of support.

In general, Academic Technology Services uses three very different approaches to solicit and meet faculty and student information technology needs. First, and arguably the most successful, is the WebCT advisory committee targeted at policy making for and management of the distributed learning system on campus (WebCT). This approach is the most inclusive and draws from a wealth of both technical and pedagogical expertise. On the other hand, there is a case to be made for small faculty advisory groups or mailing lists targeted to a specific discipline or interest -- particularly classroom design and teaching lab support issues. Does this technique work as well? Yes and No. The faculty -- the end users -- who use the classrooms must have the major input into the design process. This works well when a classroom is primarily for a single discipline. However, for general use classrooms, it proliferates non-standard system interfaces even if

they are easy to use. It would be more appropriate to at least provide some general guidelines to classroom design -- perhaps from a campus wide committee. USD is implementing a campus wide space utilization committee and perhaps that should be an avenue to involve the many campus constituents that should be involved in the planning process. The experience of other universities in this regard is useful. The same arguments hold for the teaching classroom design and policy issues.

In general, there is no one correct approach to the challenge of involving faculty in key decisions about technology. However, it is critical to involve them. On our own campus, our WebCT Advisory group works because it has a primary focus and a key group of interested and committed faculty. On the other hand, there is no campus wide information technology policy steering committee. Thus, many faculty feel they have no voice in

decisions regarding the deployment of information technology on campus. This, the authors believe, is one issue that needs a solution at the upper administration level.

In short, involve faculty in the decision process by any means possible. By doing so, faculty are encouraged and empowered to use these tools as an integral part of teaching.

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