

JULY 31, 2006

# CITES



CITES Classroom Technologies

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## 2006 Instructor Survey Overview of Results

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# 2006 Instructor Survey Report

## Executive Summary

- 93% of the instructors who responded report that the ITS classrooms are “very important” or “important” to their teaching, consistent with previous years.
  - When asked about the benefits of having the technology in the classroom, the most commonly coded theme was, “Can use multimedia easily during lecture (94 responses), and the second most common response was connected to the theme, “Allows for highly visual presentation of material (40 responses).
  - In the final open-ended question at the end of the survey, where respondents were free to write their own comments, positive or negative, the leading number of comments (16 responses) offered appreciation and compliments for the technology and services. The second most popular (11 responses) were requests for more hi-tech classrooms on campus.
- Use of the resident Windows computer stayed relatively the same as last year. However, the number of instructors who use a laptop in class, at least once a week or more, jumped from 48% to 60%.
- The top software applications used by instructors in the classroom are all part of the basic installation package (e.g. PowerPoint, Internet Explorer). Of particular note—Internet Explorer use decreased from 60% to 50%, while Firefox usage went from 15% last year to 25% usage this year.
- The perceived quality of our training has stayed relatively the same as last year, with 93% rating it as “excellent” or “good.” In the fall of 2005, full-time training staff were hired to replace graduate student trainers. The goal is the change should substantially increase the quality of the training program over time.
- The use of the document camera continues to decline, along with transparency projector usage. However, chalkboard usage stayed at a relatively constant level.
- Teaching assistants continue to be involved in the use of the ITS by 35% of respondents. A significant number of calls we receive from the classroom are coming from teaching assistants.
- Based on comments made by respondents in the open-ended portion of the survey, CITES ClassTech needs to continue to upgrade classrooms into ITS classrooms. ClassTech also needs to repair or replace problematic or outdated equipment, and modify the process of acquiring access codes and using equipment, because the process is judged to be too complicated or too time-consuming.

## Introduction

This is the sixth year our office has collected data on instructional use of audiovisual tools in classrooms. The results of the surveys have been used to make decisions about technological funding when questions were asked about priorities and allocations as well as shaping policies around classroom use. The focus of the surveys has always been the Integrated Teaching Systems (ITS) or “smart” classrooms. This year a separate survey was used to gather information about the Language Video Cabinets on campus, and the results of that are reported in a separate document.

The ITS classrooms contain a collection of audiovisual tools for instructors to use in class presentations. As of May, 2006, 127 ITS classrooms have been remodeled with presentation systems. More rooms will receive installations during the summer of 2006.

In addition to installing and maintaining the systems in these rooms, CITES ClassTech also provides training and assistance for those who are utilizing the classroom technology. Faculty and staff who wish to use the ITS equipment may attend a hands-on training session. Typically all ITS equipment is secured with an alarm system and the code for each room is changed at the conclusion of each academic term. Instructors can receive the codes via e-mail upon request. Codes are sent within a few hours of their request. CITES ClassTech technicians can make adjustments and repairs to ITS equipment when identified.

Instructors may request the installation of particular software packages on ITS classroom computers. Although Microsoft Office Suite is installed by default on each system along with web browsers, basic applications, as well as many of the campus-licensed packages, instructors frequently require additional programs for their course instruction. CITES ClassTech works with each instructor on an individual basis to ensure that these programs work correctly and do not inhibit the use of the ITS systems more generally.

Information about CITES ClassTech, ITS policies, guidelines, and services offered, as well as descriptions of each of the ITS classrooms, can be found on the CITES ClassTech website at [www.cites.uiuc.edu/classtech](http://www.cites.uiuc.edu/classtech).

This report is comprised of the following seven sections:

- **How This Survey Was Made and Who Responded**  
Survey construction details and demographic data on the faculty and staff who responded.
- **Purpose and Utility of the Audiovisual Systems**  
Survey responses having to do with the ITS classrooms as a whole.
- **Specific A/V Equipment Usage**  
Feedback regarding specific items such as the projector, VCR, visual presenter, microphone, or other items.

- “Low-Tech” Equipment  
Feedback regarding the transparency projector and chalkboard.
- Computers  
Synopsis of information concerning the use of computers, both resident and laptops, in the ITS classrooms.
- Customer Service, Training, and Support  
Commentary concerning the training sessions and support services provided by CITES ClassTech.
- Policies  
Opinions and views in regards to the administration of the ITS classrooms.

The survey questions were grouped into one of these topic areas and the results are described in more detail in the relevant sections. The comments were pooled from the areas of the survey where open-ended responses were possible. All the open-ended responses are included at the end of the report.

## How This Survey Was Made and Who Responded

In May of 2006, CITES Classroom Technologies gathered ITS-related data from instructors for its sixth year. As in the past, we used an on-line survey to collect our data because it reaches the intended audience quickly at very little expense. The survey application is provided by SurveyMonkey.com and data are maintained securely online by the company. They do not make the data available to third parties nor do they have access to any identifying information to connect back to the respondent.

This year as part of the project we completed the Application for Review of Research Involving Human Subjects. This was submitted to the UIUC Institutional Review Board (IRB), an office that evaluates the impact to humans for all ongoing or proposed studies. Our project was deemed exempt from further IRB review, unless the survey or the data-gathering methods changed significantly from what was proposed.

Many of the questions in the 2006 survey were asked in previous surveys, allowing for an analysis of longitudinal trends and patterns. The number of questions stayed at 30, the same as in 2005. One question was removed and a new one was added from the 2005 survey. In comparisons across years, data from 2004 is conspicuously missing. A different kind of survey was used that year and it did not use any of the previous questions.

This year, the list of potential respondents consisted of those who had contacted CITES ClassTech to receive training or security codes between July 1, 2005 and May 1, 2006. Using the Office of Facilities Management and Scheduling's Astra software, we were also able to manually gather the names of instructors who taught classes and had been assigned to ITS classrooms during the fall 2005 semester and the spring 2006 semester. E-mail invitations were sent to 1,133 faculty. This is down from the 1,518 that were sent to in 2005, but this year graduate assistants were removed (to the degree that we were able). A separate survey was used to solicit feedback from the graduate students. E-mail invitations were sent out April 27th. The e-mail message is shown on the following page.

Dear UIUC Faculty and Staff,

CITES Classroom Technologies is conducting its annual survey to learn more about the use of the Integrated Teaching System (ITS), or "smart" classrooms on campus. The survey consists of thirty-one multiple-choice questions and should take less than 15 minutes to complete.

There are XXX ITS classrooms on campus. We are interested in hearing the comments of faculty or staff who are involved in the use of these classrooms. The results of the survey will be reviewed by various educational technology committees and groups. In addition, a summary of the results will be posted on the CITES Classroom Technologies website. In the past, the survey results have had a significant impact on the decisions made by these groups.

Some of the changes CITES Classroom Technologies has made this year or will be making include:

Expanded support hours to 9 pm on weekdays  
Added 26 new ITS classrooms and upgraded 2 existing systems during 2005  
Completing the upgrade of the projectors in over 40 classrooms during the summer of 2006

To access the survey, point your browser to:  
<http://www.surveymonkey.com/s.asp?u=721612073906>

The survey will close at 5 pm on Friday, May 5th.

We use surveymonkey.com because it is a self-service electronic surveying tool with powerful reporting features.

If your web browser does not open automatically when clicking on the link above, cut and paste the link into the address field of whatever browser you prefer.

If you would like to respond to the survey but prefer to complete it in a non-electronic format, we can issue a paper version. Please e-mail us at [mcnurlen@uiuc.edu](mailto:mcnurlen@uiuc.edu) to make this request.

Yours,

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The online survey was deactivated at 5 PM on Friday, May 12<sup>th</sup>, allowing 12 business days for responses. 279 faculty responded, down from the 382 last year. However, last year's survey included graduate students who taught courses and this year they were invited to a separate survey. All survey responses were submitted electronically and all were included in the summary. The response rate of 25% is exactly the same as it was from last year.

The proportion of respondents who indicated they were teaching in a partial ITS classroom, a room without a computer and document camera, was 6%, up from the 3.6% last year. In 2003, the survey respondents teaching in these rooms made up 2.6%. The difference between the groups is still negligible and therefore the data can be interpreted as though respondents from the different years were equal in regards to equipment access.

## Purpose and Utility of the Audiovisual Systems

One of the primary goals of the survey was to ascertain how faculty and staff perceive ITS classrooms generally. Several questions were aimed at discovering how often the systems were used and how important their use was to classroom teaching.

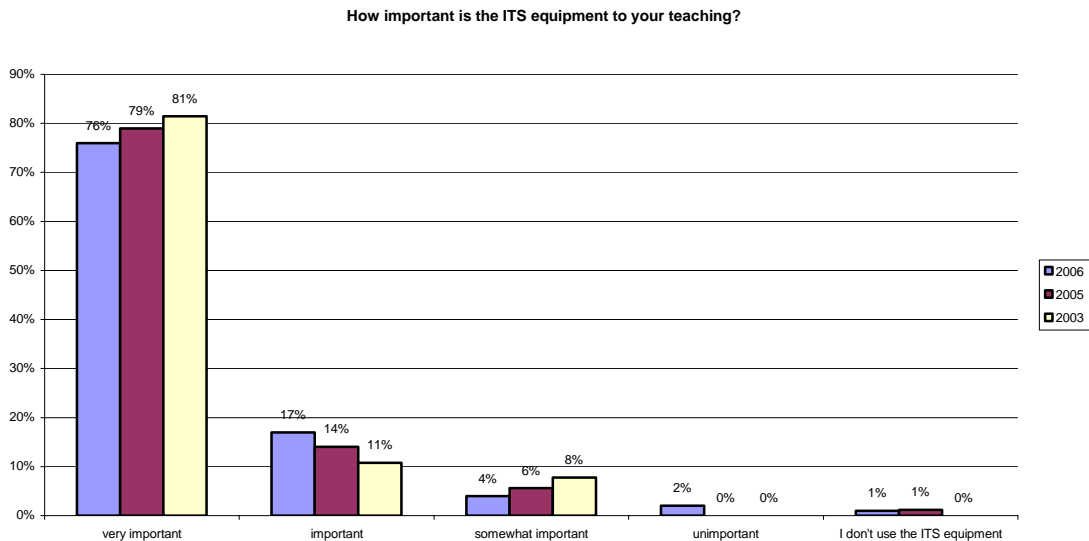
Note that this survey is only addressing ITS classrooms, not classrooms in general, departmentally controlled classrooms or other campus interests. Some respondents have been confused by the intention of the survey and have openly wondered why some questions were not asked. For example, the survey does not contain questions about student seating quality or arrangement because those are issues outside the purview of CITES ClasTech.

### Importance of ITS Classrooms

The first ITS classrooms were remodeled in 1994. Three rooms were completed that year, with four coming online in 1995. The peak year was 2000 when 29 classrooms were added. Prior to the ITS installations, most classroom audiovisual tools consisted of the blackboard and a transparency projector. A number of rooms had a slide projector, but only the largest lecture halls, Lincoln Hall Theatre and Foellinger Auditorium for example, had any form of voice reinforcement.

Technology has become an integral part of education. Figure 3 below shows how important the new generation of audiovisual tools is to instruction on campus.

Figure 3



This year, 93% of respondents said that the Integrated Teaching System is “very important” or “important” for their instruction. The numbers in those top two categories have stayed relatively constant. Less than 1% indicated that they do not use the ITS equipment at all.

## Comments concerning the benefits of using an ITS classroom

When asked, "What are some of the benefits to your teaching that the presentation technology in the classrooms allows?" a few instructors responded:

"Beneficial in showing documentaries and other media pertinent to the material discussed in class. Offers a variety of avenues for students to become familiar with the topics addressed and provides added formats of presentation that allow for greater understanding and comprehension of material."

"[Allows for] real-time demonstrations in Excel, writing notes in Journal from my tablet PC, annotating .pdf files that contain formal lecture notes.."

"Having the equipment allows me to actually play the sound plus video files (i.e. students are not confined to working with a transcript alone). I also use PowerPoint presentations for my lectures."

The responses were also coded based on 16 themes that arose from the data. The themes are listed below in Table 5 in descending order, based on the number of coded responses from the participants. Not everyone responded to this particular question.

Table 5

| <b>What are some of the benefits to your teaching...?</b>     | <b># of respondents</b> |
|---|-------------------------|
| Can use multimedia easily during lecture                      | 94                      |
| Allows for highly visual presentation of material             | 40                      |
| Can integrate lecture with Illinois Compass or course website | 14                      |
| Allows for web access during class                            | 12                      |
| Can use Powerpoint during lectures                            | 11                      |
| Can show course-related motion pictures                       | 7                       |
| Provide sound and visual effects to course material           | 7                       |
| Provides sound/voice reinforcement                            | 7                       |
| Because of technology, can make greater use of class time     | 7                       |
| No longer need to carry my own equipment                      | 6                       |
| Allows students to do multimedia presentations                | 6                       |
| It is essential to instruction                                | 5                       |
| Addresses the multiple learning styles of students            | 3                       |
| Allows the use of my tablet PC                                | 2                       |
| Can display the textbook                                      | 2                       |
| Time required to prepare for class is reduced                 | 1                       |

## Comments Concerning Classroom Design and Overall Environment

Instructors enjoy making use of new technologies without sacrificing access to other tools as well. This becomes very clear in the comments from instructors who wish to use tools like PowerPoint while at the same time making use of the chalkboard. This is a problem because in many ITS classrooms the projection screen needs to be raised to gain access to the chalkboard.

There are many variables that impact projection screen size and placement—size of the room, distance to the farthest seat, viewing angles, aspect ratio of the image to be viewed, location of the presenter and the podium, entry and egress from the room, and others. Many of the campus buildings are over one-hundred years old and the physical requirements for media presentation were never anticipated. Visual real estate at the front of a classroom is finite and always at a premium. Compromise solutions are often the norm and setting up projection screens and blackboards so that they can be used simultaneously is often not possible.

There have always been a few comments about cabinet design in previous surveys. Some instructors have felt the cabinets are too bulky, are too high for shorter people and uncomfortably low for taller people. Ergonomics is one of the issues considered in the design of cabinetry. Security and sustainability are others. It is also important to note that the media in the instructor cabinets has to be made accessible to all instructors, including those with mobility impairments.

The comments in the open-ended portions of the survey were pooled and categorized based on the topic addressed. The table below tallies the number of respondents who addressed particular topics.

Table 6

| Comment Category  | # of Respondents |
|---|------------------|
| Problems with lighting, projection screens, temperature, etc. | 12               |
| Cannot use ITS and chalkboard at the same time                | 5                |

Below are some additional comments made in regards to ITS classrooms:

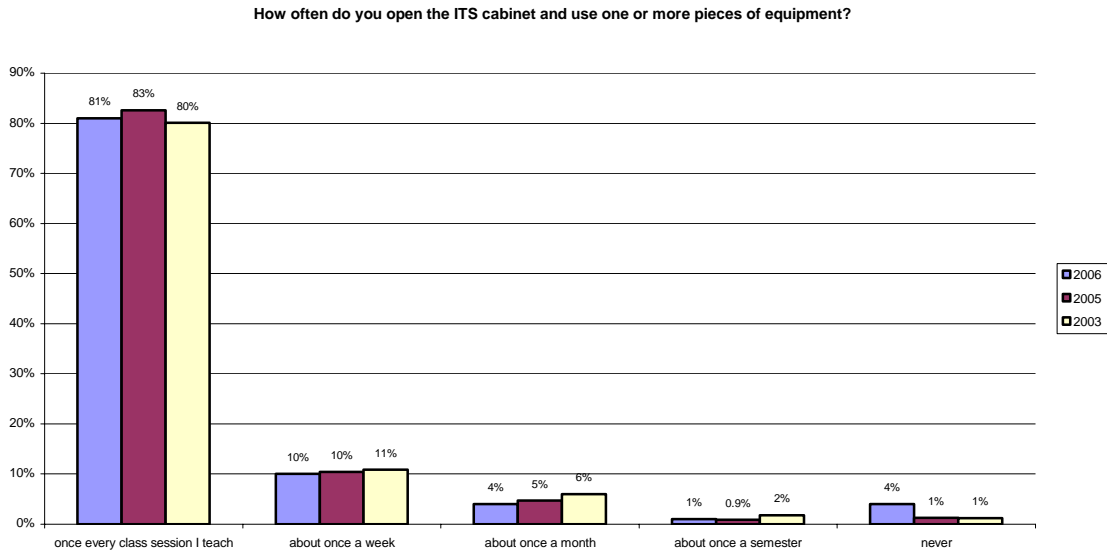
“The blinds/shutters in my classroom did not close properly until several weeks into the semester, which makes the use of the projector less effective. Secondly, the lighting in the room is not ideal; I often had to choose between asking students to take notes and thus leaving the lights on, and turning off the lights for better image quality...”

“...sometimes the positioning of the cabinets makes it unduly awkward to use the equipment AND interact with the students. Then, the equipment becomes an interference rather than support. The configuration of the furniture and the ability to flexibly alter the environment for different activities is essential for quality instruction.”

#### Frequency of ITS Use

Connected to how dependent instructors are on the audiovisual tools is how often they need to use it. Equipment needs to always be in a functional state because of how reliant most faculty are on the equipment, day in and day out. See Figure 4 for a summary of how frequently instructors accessed the ITS equipment.

Figure 4

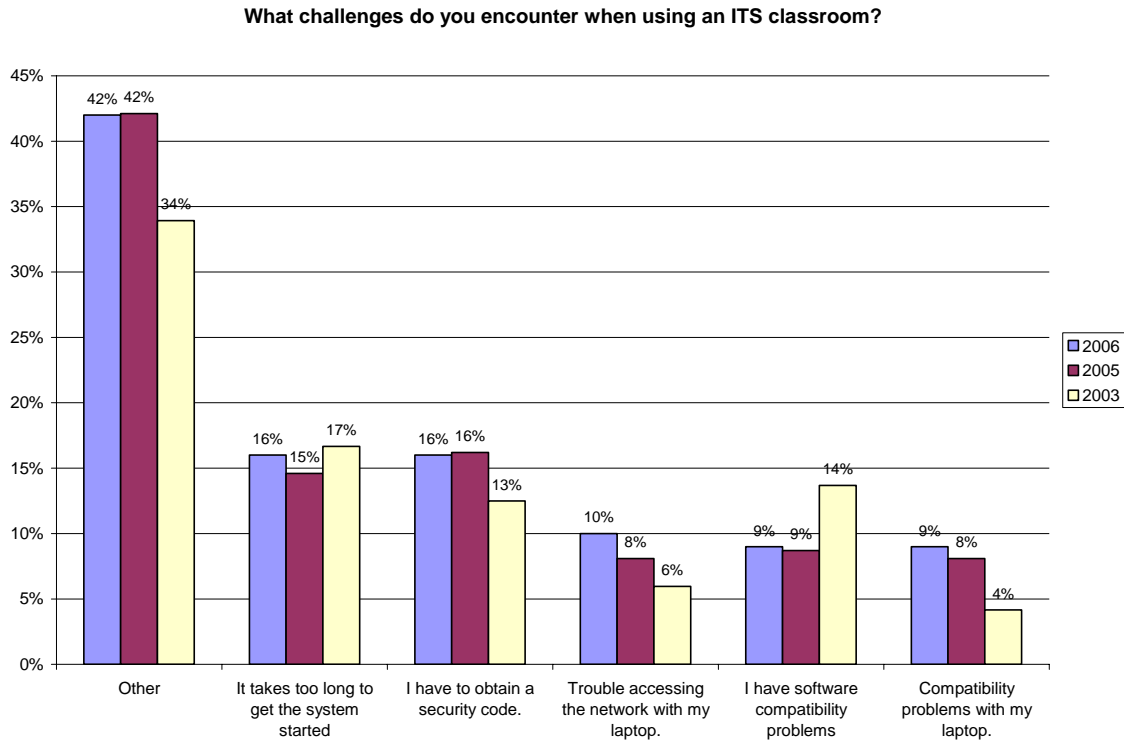


Clearly the numbers have stayed relatively constant since the 2005 survey. Four out of five instructors are using the system everyday. As the number of classrooms has increased, there are many more courses taking advantage of the technology at any given time of day. Therefore it is very important for the trained staff of technicians and support personnel to conduct preventative maintenance whenever possible and to be prepared to assist instructors when the situation requires it.

#### Challenges to ITS Use

Using the ITS equipment can have its problems and, on the part of instructors, requires another layer of teaching "skill." When problems or limitations are encountered not only is it an annoyance for the instructor, it can also be very distracting for the students as well. Figure 5 shows what challenges were considered to be the most prevalent when dealing with the ITS classrooms.

Figure 5



In Figure 5 above, note that this is not a forced choice question so respondents could check more than one answer if they felt it was appropriate to do so. Such a heavy reliance on classroom presentation technology does have its costs. 16% of the sampled instructors remark that it takes too long to get the system started. In the 2004 user survey, we found that a significant number of instructors often leave the ITS cabinets unlocked and started for the next instructor in order to save time.

ClassTech created a web form to improve the code request process in 2003. Codes are e-mailed to requestors within an hour on average. However, there were still a number of comments from respondents who felt the process was cumbersome and questioned the need for security.

Table 7

| Comment Category                                 | # of Respondents |
|--|------------------|
| Process too complex, time-consuming              | 31               |
| Problems with access, padlock complaints         | 16               |
| System does not have equipment/features I desire | 6                |

### Common Uses of ITS

In Table 8 below, the response data are summarized concerning how the systems are most often used. In many classroom situations an instructor uses several forms of media during a 50-minute session. We wanted to know the most common task that involved audiovisuals.

Table 8

**“Rank order the following activities based on how important they are to your teaching in an ITS classroom, with "1" as most important and "5" as least important.”**

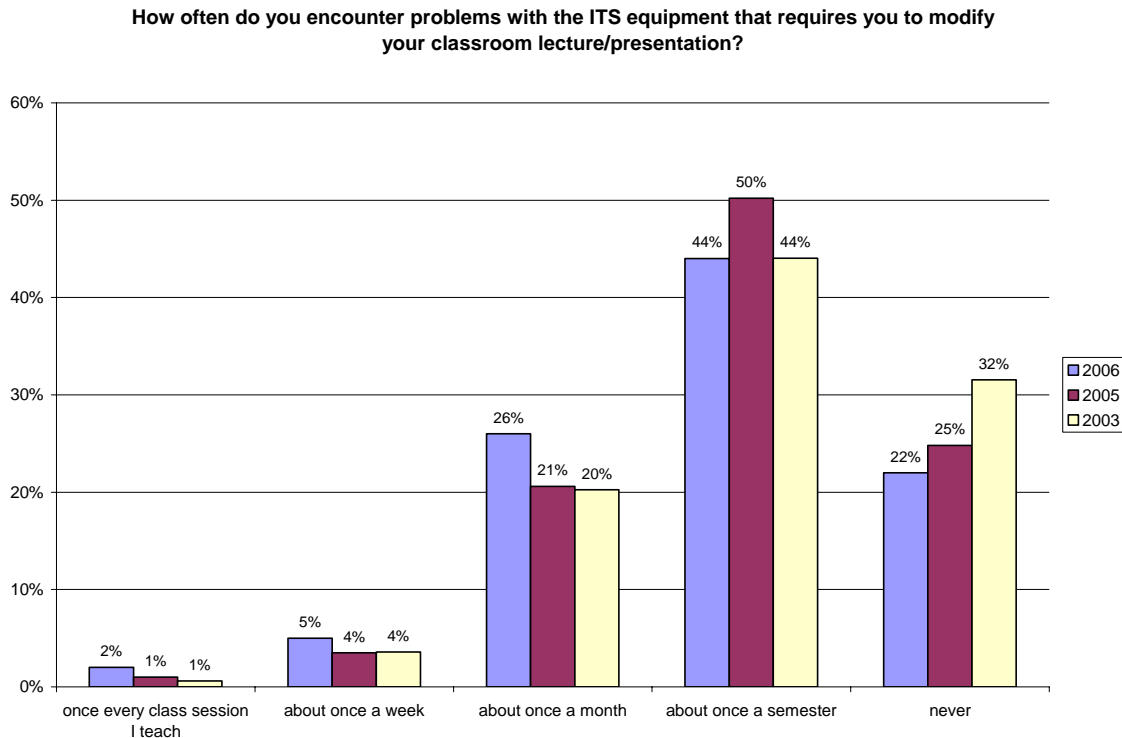
| Activities/Rank                                       | 1   | 2   | 3   | 4   | 5   | NA  |
|---|-----|-----|-----|-----|-----|-----|
| Present my lecture notes as a PowerPoint presentation | 64% | 12% | 5%  | 6%  | 3%  | 9%  |
| Access Illinois Compass                               | 3%  | 7%  | 20% | 16% | 16% | 38% |
| Teach using software other than PowerPoint            | 12% | 19% | 24% | 13% | 13% | 19% |
| Play videotapes or DVDs                               | 15% | 26% | 17% | 16% | 11% | 14% |
| Use the microphone                                    | 10% | 18% | 9%  | 16% | 22% | 26% |

As shown above, PowerPoint was most frequently ranked the number 1 activity, listed as such by 64% of the respondents. Playing videotapes or DVDs was a distant second at 15%.

## Frequency and Source of Problems

Some technical problems, such as those listed in the section titled, Challenges to ITS Use, are simply a nuisance. However, some problems result in a lost class session or a topic has to be skipped entirely for the course, seriously impeding instruction. Figure 6 shows how often instructors indicated this occurred in their class during the past year.

Figure 6



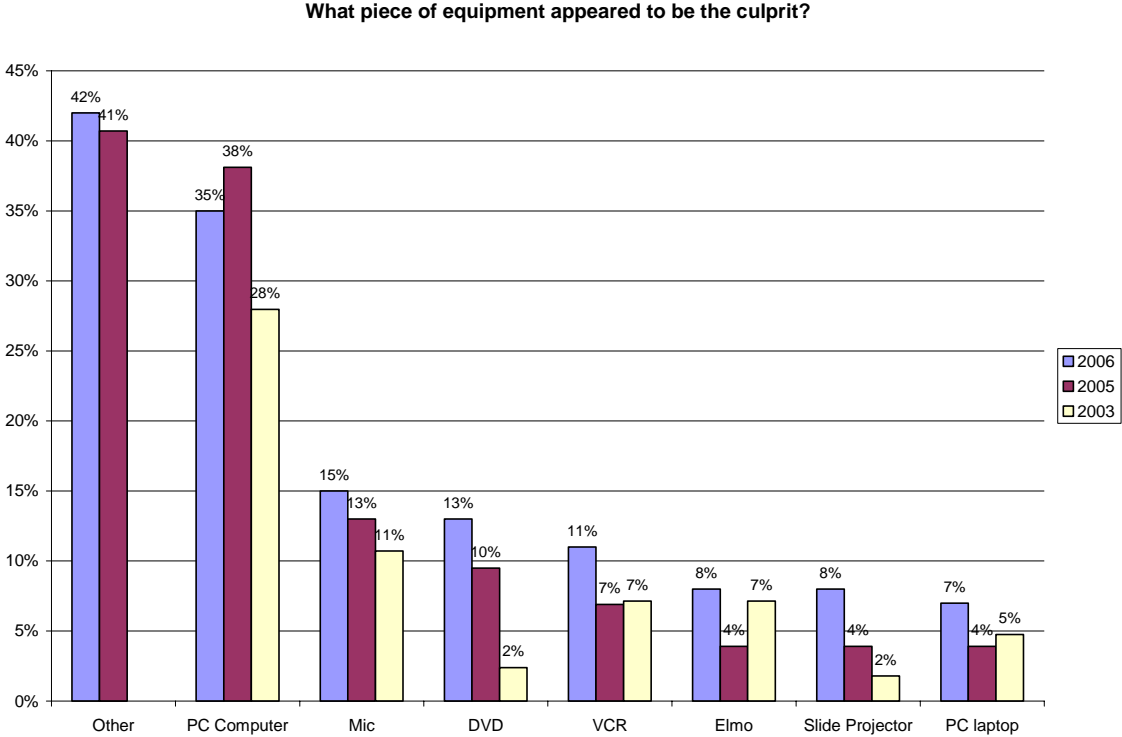
The largest group of instructors reports a serious problem with the equipment only once a semester. However, a quarter report a problem at least once a month or more. Problems could range from a complete system malfunction to a problem with the campus network. Nevertheless, CITES ClassTech continues to make improvements to its systems to lessen the number of technical breakdowns. New projectors were installed in many existing ITS classrooms during 2005. 52 new projectors have been installed during the spring and summer of 2006 and this project is ongoing. Preventative maintenance is done at the end of each semester which also reduces problems. However, some equipment is approaching or has surpassed its projected lifespan, which can lead to breakdowns. It should be noted that problems can occur not only as a result of malfunctioning equipment but because of improper operation by previous users. A significant proportion of reported problems have been identified as user error and the equipment found to be in working order.

When problems do arise, users can contact CITES ClassTech and a staff person will arrive in the room within ten to fifteen minutes on average. Many problems can be remedied immediately during the class session, if the instructor allows.

It is difficult for classroom users, without the requisite technical knowledge, to diagnose what pieces of equipment are the culprits when problems arise, but we ask them for their

opinions in the survey. Figure 7 outlines which of the items users feel cause most of the problems.

Figure 7



In Figure 7, the PC computer is listed as the most frequent culprit of problems in the classroom, though it is also certainly the most frequently used and requires the greatest amount of support. It should be noted that all of the PCs were replaced during the Dec. 2004-January, 2005 break.

## Specific A/V Equipment Usage

### Comments Concerning Projectors

The projectors are the most critical piece of the ITS package. Without the projector, nothing but the classroom microphone is of any use. There were no survey questions that dealt directly with the projector. However, respondents chose to single it out in many of their open-ended responses.

There were 24 open-ended responses where instructors indicated that the projector was believed to be the culprit when the ITS was not working properly. There were 4 who thought the brightness was not high enough for students to see the images properly. Even with the increased brightness of the latest LCD projectors, ambient light needs to be reduced, especially at the front of the room and close to the projection screen. Most of the ITS classrooms have the lighting set in such a way that the light fixtures near the screen can be turned off, but the fixtures over the audience can be left on so the projected image is not “washed out.”

Some of the comments were:

“The projector failed [about] 15 times during the semester. Although the support staff I worked with were excellent in fixing the immediate problem (15-20 minutes each time, requiring significant changes to lecture), the overall problem took months to resolve, which was very frustrating.”

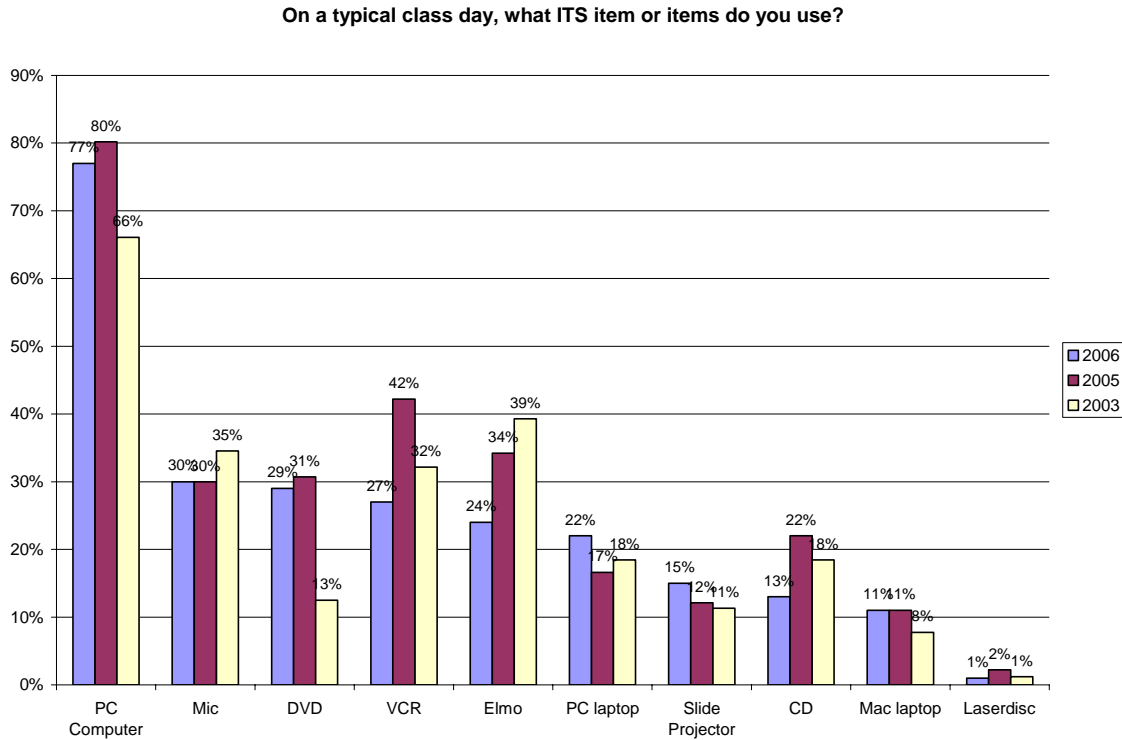
“The video projector connected to ITS system [is what appeared to be culprit and caused me to have to modify my lecture/presentation].”

“Keeping the projector in focus shouldn’t be too hard, yet it is often fuzzy. This is a real problem and lessens the impact of my teaching...”

## Typical ITS Equipment Use

In Figure 8, the data shows what instructors made use of on an average day when they were in the ITS classrooms. It should be noted that respondents could check more than one item, so the total percentage adds up to more than 100%. From left to right on the bottom axis, items are listed from most popular to least popular.

Figure 8

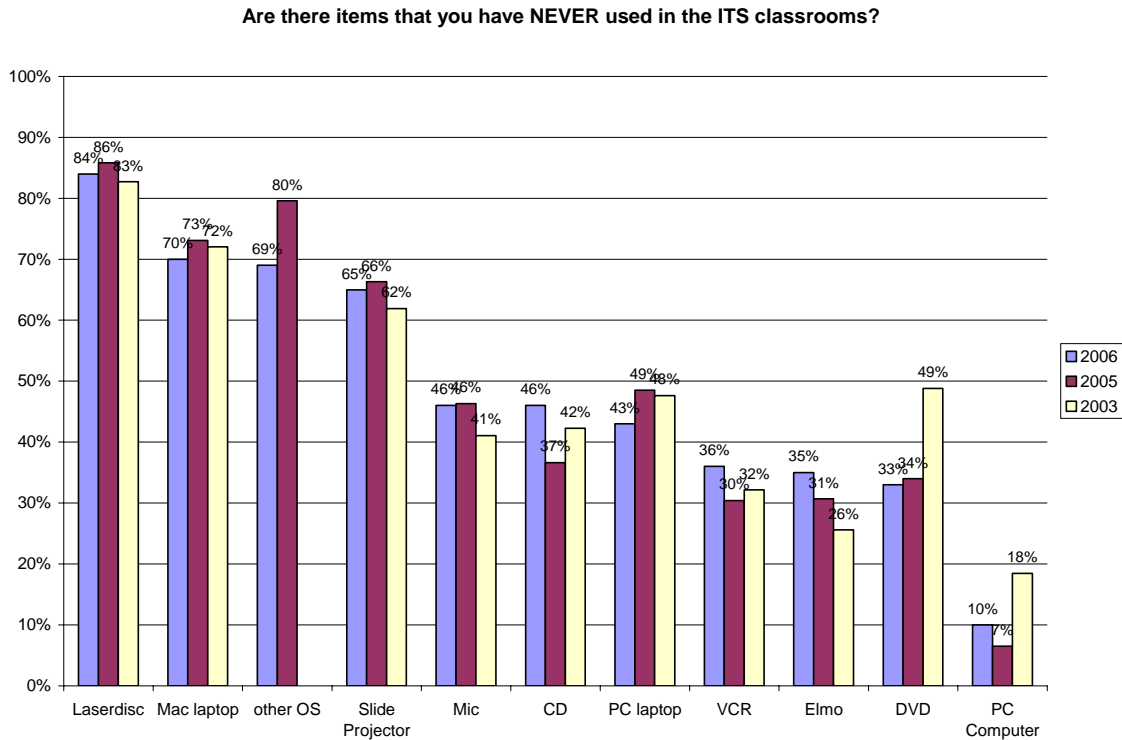


In Figure 8 above, on a typical class day nearly 80% of all instructors make use of the PC computer. For the most part all the devices are used with much the same frequency as in previous years. Use of the visual presenter or “Elmo” is steadily declining and DVD usage has stayed around 30% since it jumped significantly two years ago.

## Seldom Used ITS Equipment

Figure 9 highlights the equipment that is rarely used in the ITS classrooms. Note that the laserdisc are only housed in a handful of the classrooms. Stand-alone DVD players and VCR/DVD combo units are becoming a standard feature in new classrooms.

Figure 9

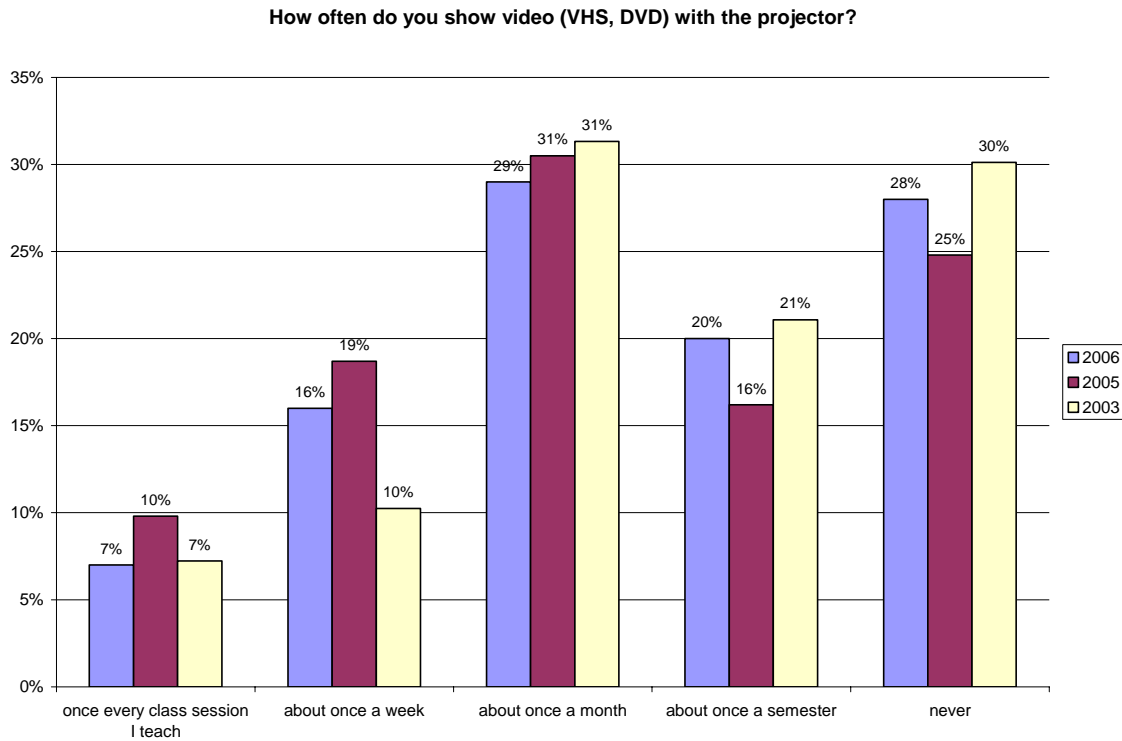


The number of document camera or “Elmo” users continues to decline, while the number of those who refrain from using the slide projector remains above 80%.

## Use of Video

A growing number of users are relying on DVD media. However, there have been occasional problems when playing DVDs in the Windows computers. The problems have been experienced beyond just the classroom and are an industry-wide concern. Even stand-alone DVD players will encounter a playback problem on occasion, due to media that is not clean, not formatted properly or other problems.

Figure 10

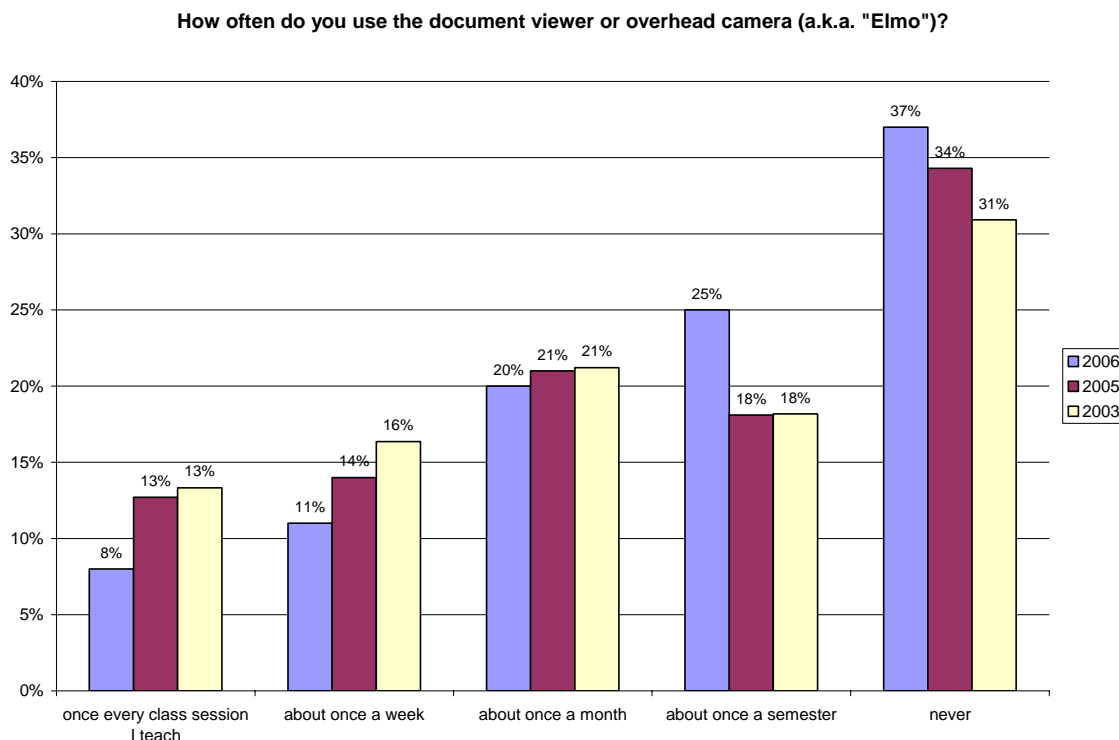


This was a year where there was some decline in the use of video, although this does not take into account the use of streaming video or other forms of digital video over the network.

## Use of Document Camera

The document camera is a device often thought of as allowing for an easy transition from traditional forms of media presentation like the transparency projector to a more high-tech system like ITS. Figure 11 shows that there is a steady decline in its use. This was confirmed by other questions concerning equipment as well.

Figure 11



Some instructors are still expecting a higher level of quality than what a document camera can produce, and have commented that it is useless until the resolution is improved. Although higher resolution document cameras exist, they are extremely expensive.

There remains a small but vocal group of instructors who rely on the document camera, using it to show such things as rock samples, insect larvae, and textbook images. One respondent noted:

"It will be very important for my teaching to retain the document camera because I rely very heavily on figures and graphs that I can project directly from text books and other sources...."

## Comments Concerning Audio

There is no question that audio is an important component of the audiovisual system, especially in larger lecture halls. Without a projector, good instructors can still stand in front of a class and talk about their topic extemporaneously. Without a working microphone, teaching is most likely at a stand still.

Obstacles to good audio most commonly are a dead battery when it comes to wireless microphones. The CITES ClassTech staff checks the wireless microphones and re-stocks batteries in the classrooms at least twice a week. Wireless microphones are also very sensitive pieces of equipment that do not stand up well to daily abuse. During preventative maintenance appointments, CITES ClassTech staff find many microphones with frayed wires, cracked cases, and other damage that causes intermittent problems with the equipment. The training staff works with faculty to improve the handling of these devices.

A few examples of comments made by respondents concerning audio:

“When playing a DVD through the computer, we get no audible sound. This happened last year in my ITS classrooms as well..”

“The microphone is not wireless [and this is a challenge].”

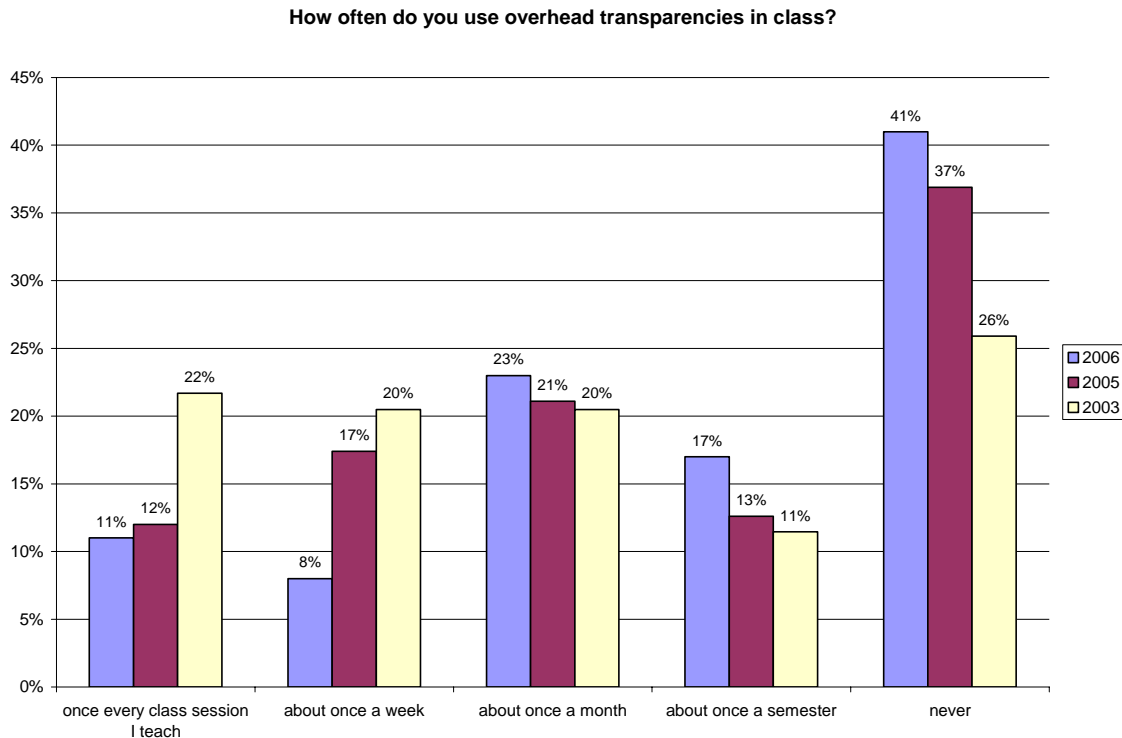
“The speakers don’t provide enough volume.”

## "Low-Tech" Equipment

### Overhead Transparency Use

Even though ITS classrooms have an abundance of high-tech presentation equipment from which to choose, many instructors prefer to make use of the transparency projector at some point during the class sessions. There is at least one transparency projector in each of the general assignment classrooms. These projectors are now maintained by CITES Classroom Technologies. Figure 12 below shows the frequency of use of this device.

Figure 12

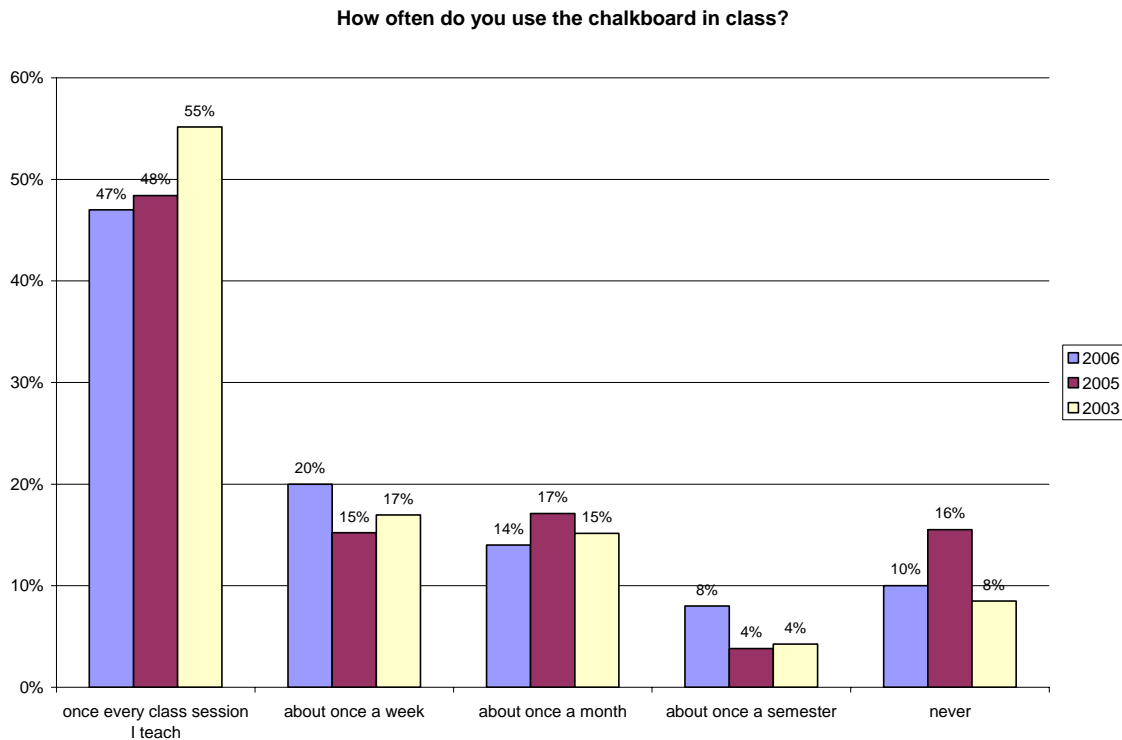


This year there was a drop in use. Nevertheless, 19% still say they use it at least once a week. Many instructors use the transparency projector much of the time along with the other presentation tools and will probably continue to do so in the foreseeable future.

### Chalkboard Use

Like the transparency projector, the chalkboard is in every general assignment classroom. Many instructors feel this is a critical part of the teaching process, a part not allowed by static, prepared PowerPoint presentations. Most of the instructors assigned to ITS classrooms make use of the chalkboard along with the other forms of instructional media. Figure 13 below shows how frequently instructors indicated using chalkboards.

Figure 13



Used even more often than the transparency projectors, the chalkboards are used by 67% of instructors at least once a week or more. This is up slightly from last year.

Going back and forth between electronic media and the chalkboard is a desire of many instructors and presents some real challenges for classroom design. Not only do the projection screens often obscure the chalkboards in many classrooms, but they require oppositional lighting scenes. Typically what is good for one is not good for the other and a compromise is required.

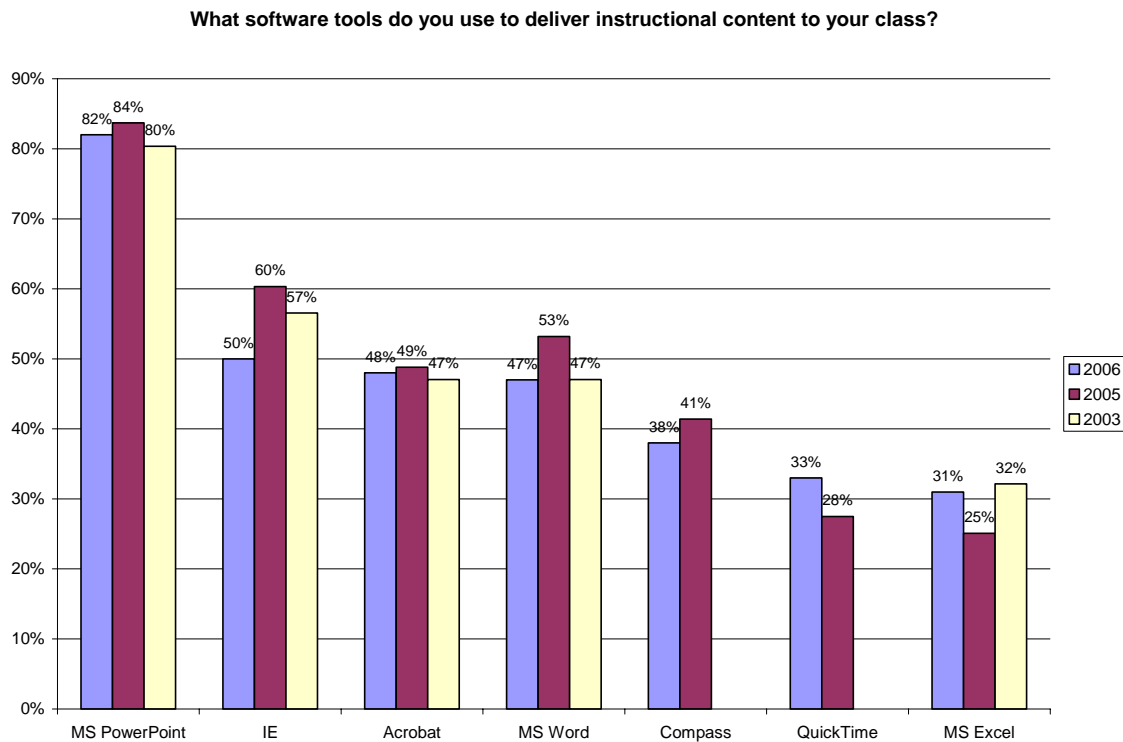
## Computers

Computers are one of the most expensive commodities in the ITS classrooms, though they are a powerful teaching tool. They demand a good deal of expertise to support, which is why they are served by a group of CITES ClassTech staff members separate from the instructional media technicians. These team members install a basic software package along with special software requests, set permissions, as well as handle issues related to security, hardware, and networking.

### Software Tools

CITES ClassTech provides a number of software packages on the ITS computers by default, though instructors can request additional software when necessary. Figure 14 shows only the top seven most popular software applications. The total number of applications installed on the computers is more than twice that number.

Figure 14



Not surprisingly, PowerPoint is still the leading software tool of instructors on campus. Most noticeable in Figure 15 is the decrease in Internet Explorer usage, from 60% to 50%, while the browser Firefox has jumped from 15% to 25%.

A greater number of programs are installed by default on the computers every year, which has not necessarily resulted in reduced install requests from users. New applications are continually promoted and requested.

## Comments Concerning Resident Computers

There are a number of comments concerning the resident PC computer in the classrooms. Below are just few samples:

“...I wish the USB port was easier to find. It's just a loose cable thrown in the bottom of the PC enclosure with some other cables.”

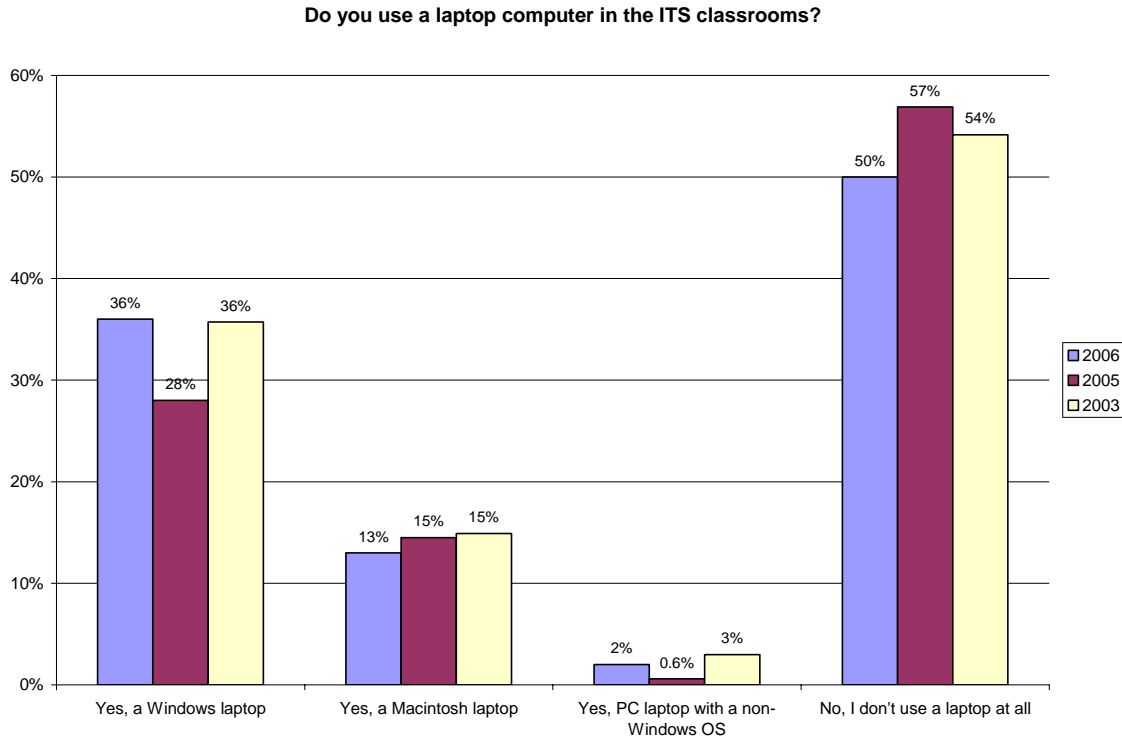
“I need to have software from the CD that comes with the book loaded on the machine in the room where I teach...this is always a bit of a hassle.”

Many instructors believe they need access to the back of computers or find the port placement confusing. USB extension cables have been on ITS computers since 2003. Even with the installation of new computers with front-side USB ports, extensions have been installed to improve the ease with which USB devices can be connected.

## Laptop Computer Use

As noted in the 2004 survey, some instructors like the security of knowing their instructional content is with them on their own machine and that it can be manipulated at any time. Also, there may be some issues when accessing password-protected resources from the classroom computers, a roadblock that can be avoided with the use of personal laptop. Figure 15 presents to what degree instructors make use of laptop computers in the classrooms.

Figure 15



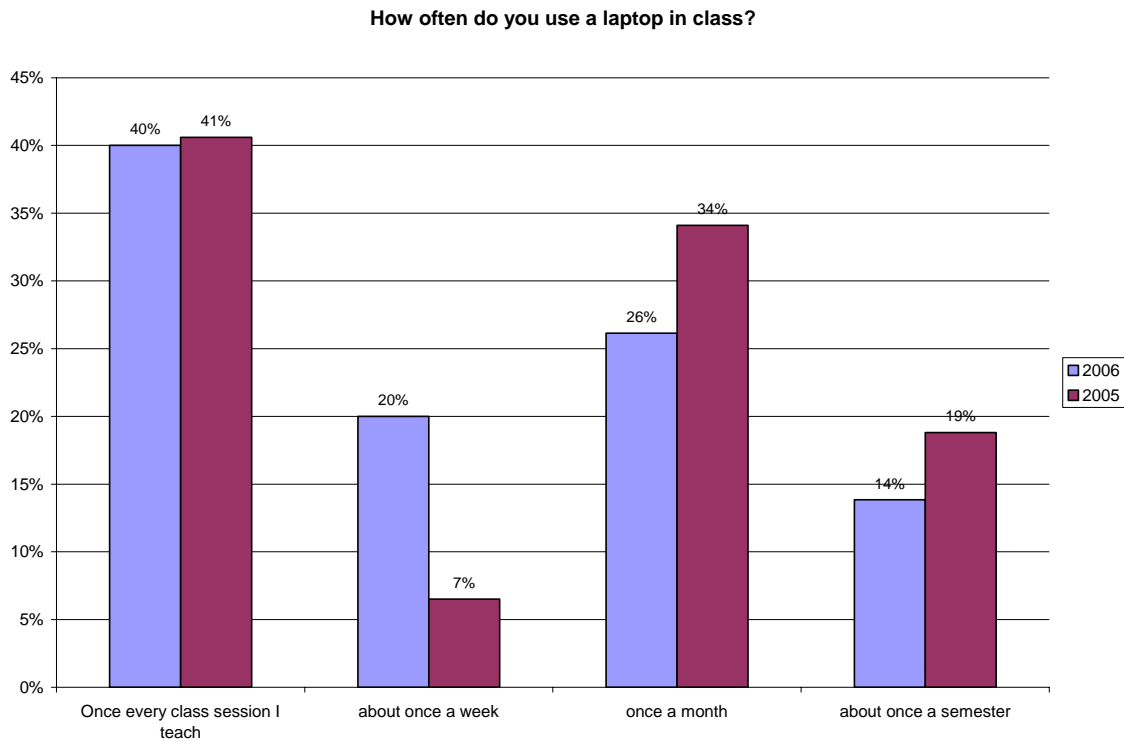
There was an 8% increase in Windows-based laptop usage, a return to the 2003 level.

## Comments Concerning Laptops

Table 9

| Comment Category                        | # of Respondents |
|---|------------------|
| Laptop connection or interface problems | 2                |
| No network cable provided               | 2                |
| Need more campus Macintosh support      | 11               |
| Problems using tablet PC                | 2                |

Figure 16

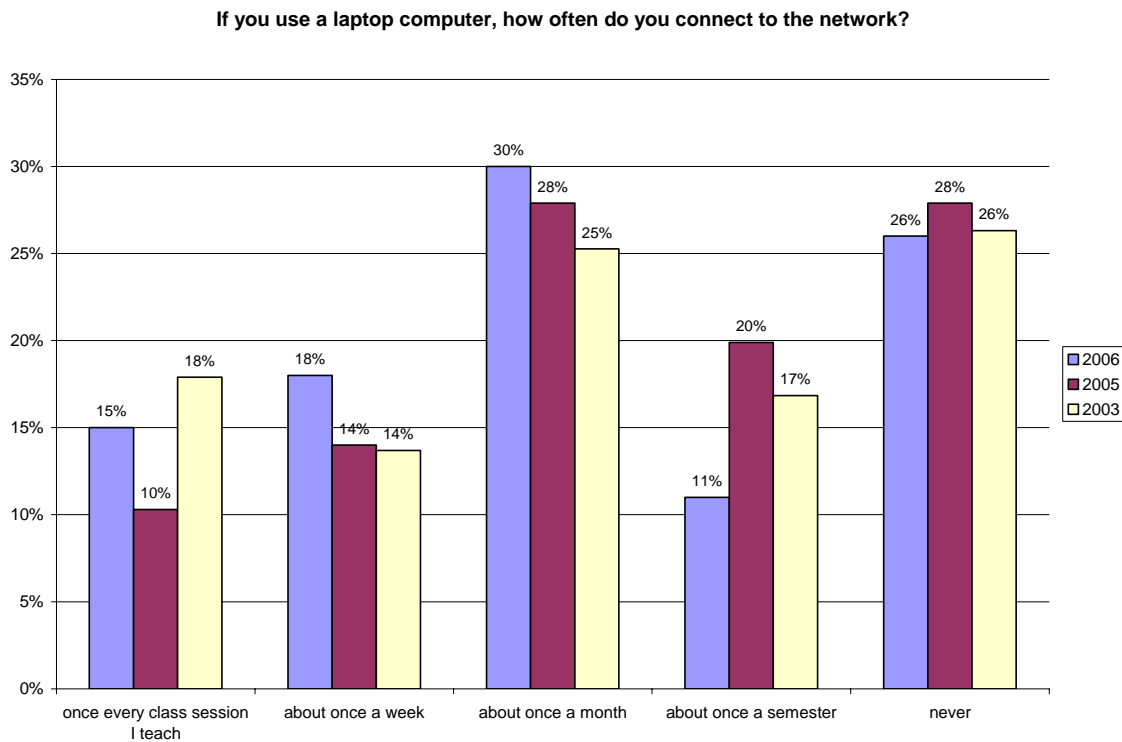


The respondents answering this question had previously answered “Yes” to the question asking if they indeed used a laptop at all in ITS classrooms. Therefore, 40% of those who responded used it every class session, while 60% used at least once a week or more. This is a substantial increase from last year.

## Networking Laptops

More classrooms are on the ClassTech network and a form on the ClassTech website which requires a user's machine address allows our staff to register that user, who can then move from ITS classroom to classroom without having to enter a different static IP each time. As the network upgrade continues, it allows greater flexibility in how connectivity is handled, therefore making it an easier process for instructors. The network upgrade will also increase the reliability and speed of the network overall. The addition of wireless in many buildings also improves instructor access. Figure 17 displays how frequently instructors make use of the network when using their laptop. It should be noted that respondents could be indicating a connection to the ClassTech-provided jack, a department-provided jack, or a wireless connection.

Figure 17



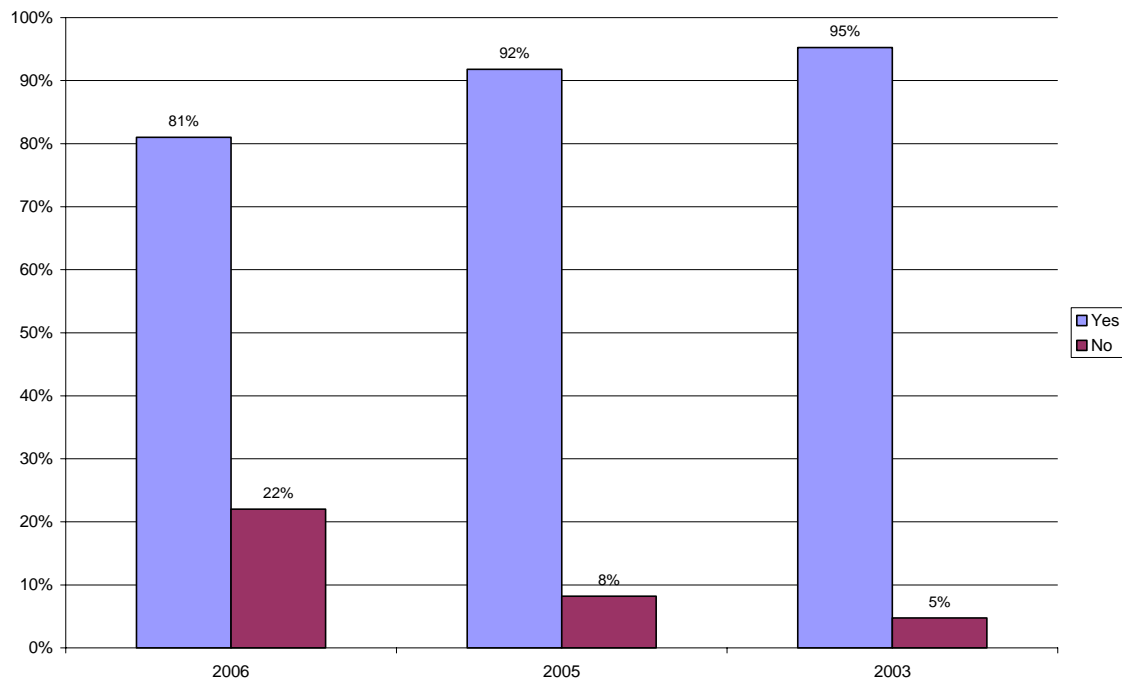
## Customer Service, Training, and Support

### Training by CITES ClassTech Staff

In December, 2004, the ClassTech policy of requiring training for all ITS classroom users was terminated. Nevertheless, training sessions are still offered and encouraged. Many instructors continue to register for these hands-on, one-on-one meetings that usually take place in the classroom to which the instructor is assigned. Workshops are also offered just prior to the start of semesters. Figure 18 shows how many instructors indicated that they had received ClassTech training.

Figure 18

Have you ever been trained to use the ITS classroom by a CITES ClassTech staff member?

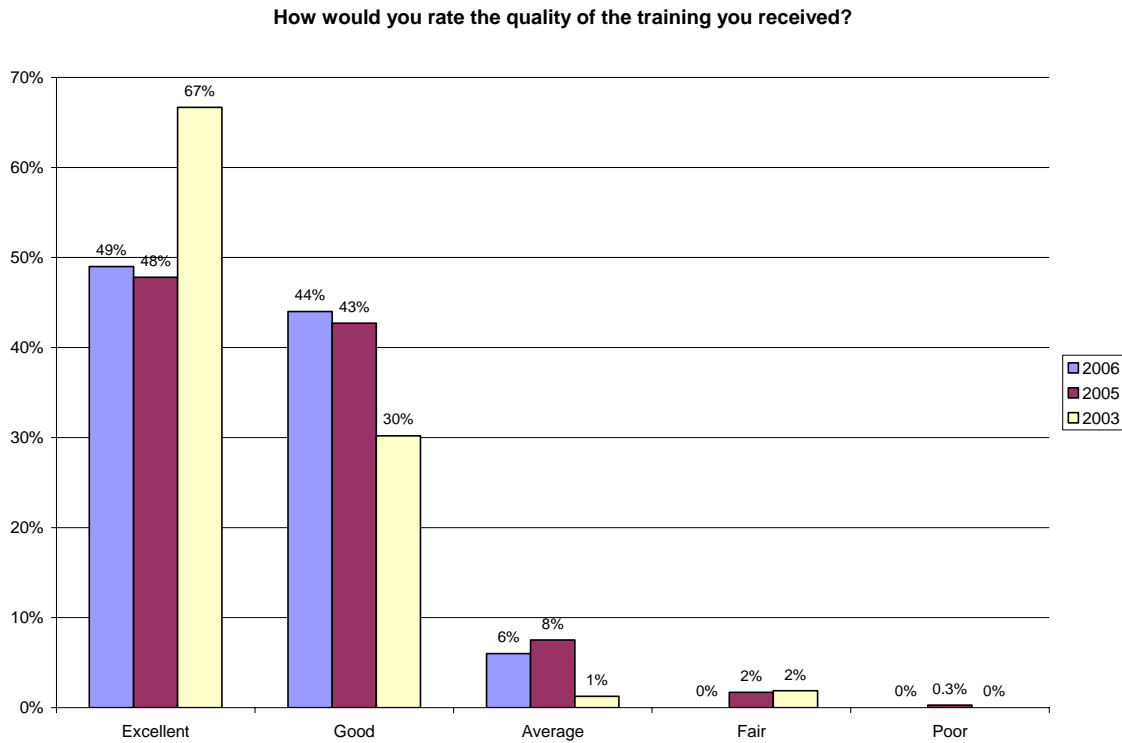


The 11% drop is significant. There are still instructors who are unaware that training and support are even offered, obtaining security codes from colleagues and departmental support staff rather than registering through the ClassTech website. With the removal of teaching assistants from participating in this survey, a group that often receives access codes from their instructors, this statistic seems even more remarkable.

CITES ClassTech makes every attempt to contact the faculty and staff who are assigned to use the ITS classrooms weeks before the start of every semester. E-mail is sent out to all instructors, either targeted or through massmail and eWeek announcements.

## Quality of Training

Figure 19



91% of the 2006-year respondents felt the training was either “Excellent” or “Good,” close to last year’s survey results. The graduate student coordinators, who had taken over much of the responsibility of instructor training, were replaced with full-time staff to handle the training and support duties in the fall of 2005. One goal is to increase the quality of training and to improve the handling of support.

Figure 20

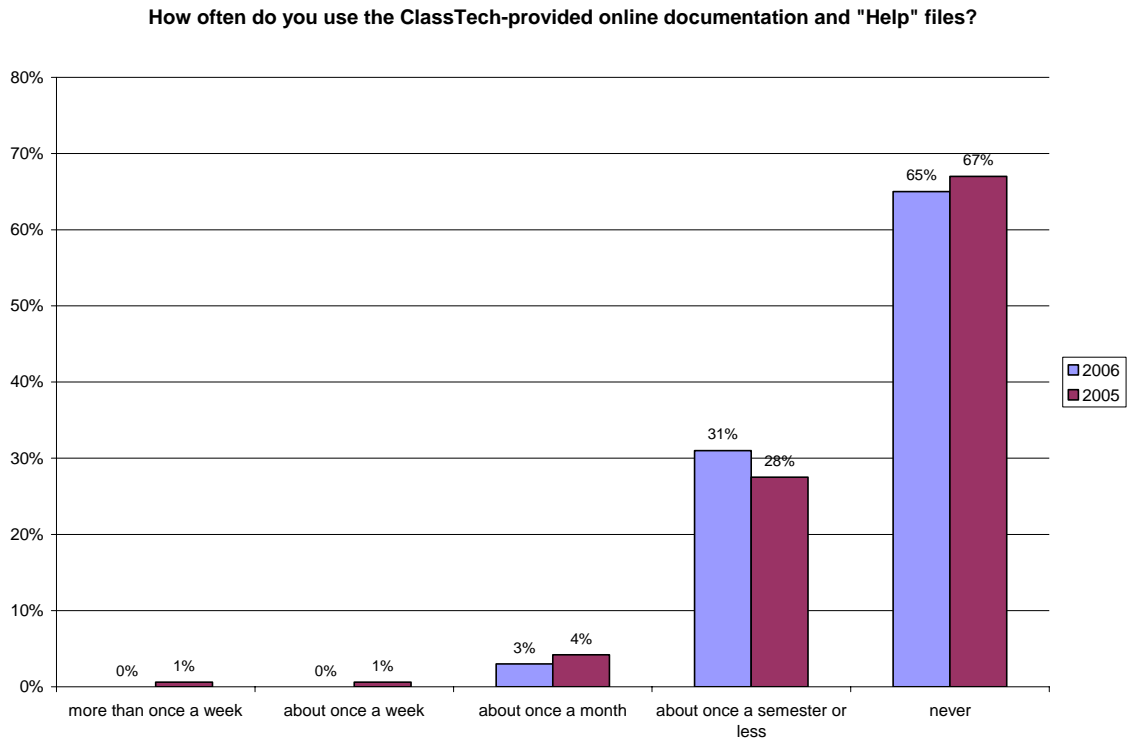
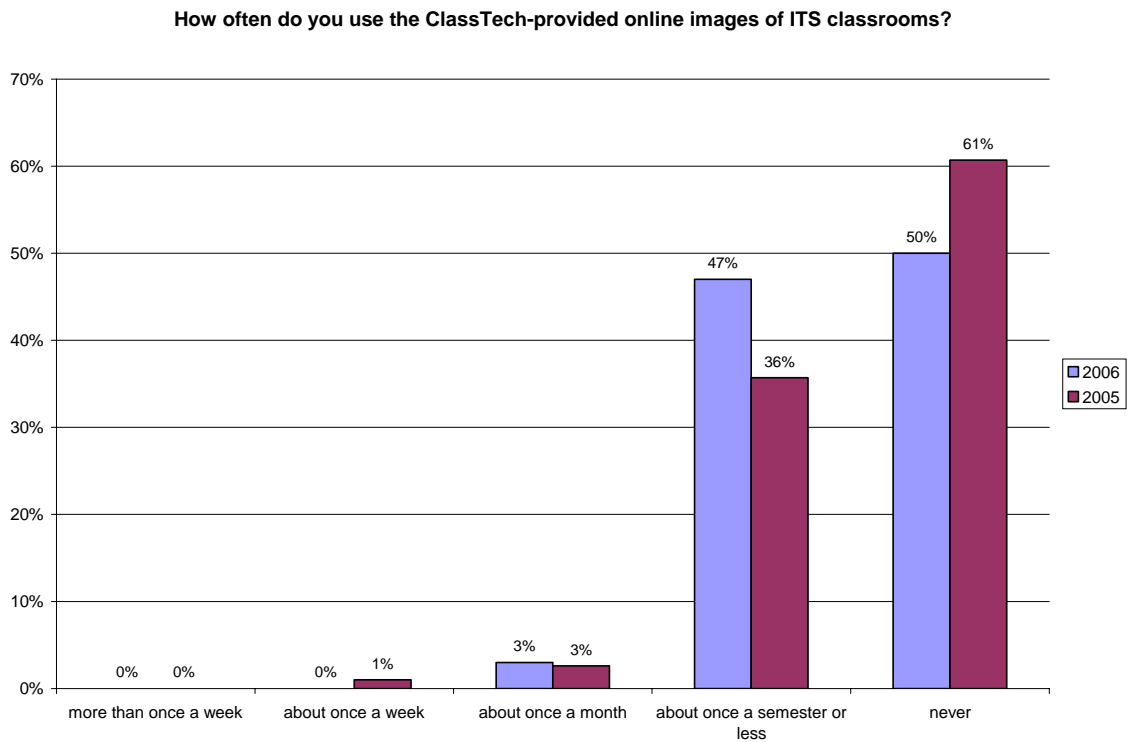
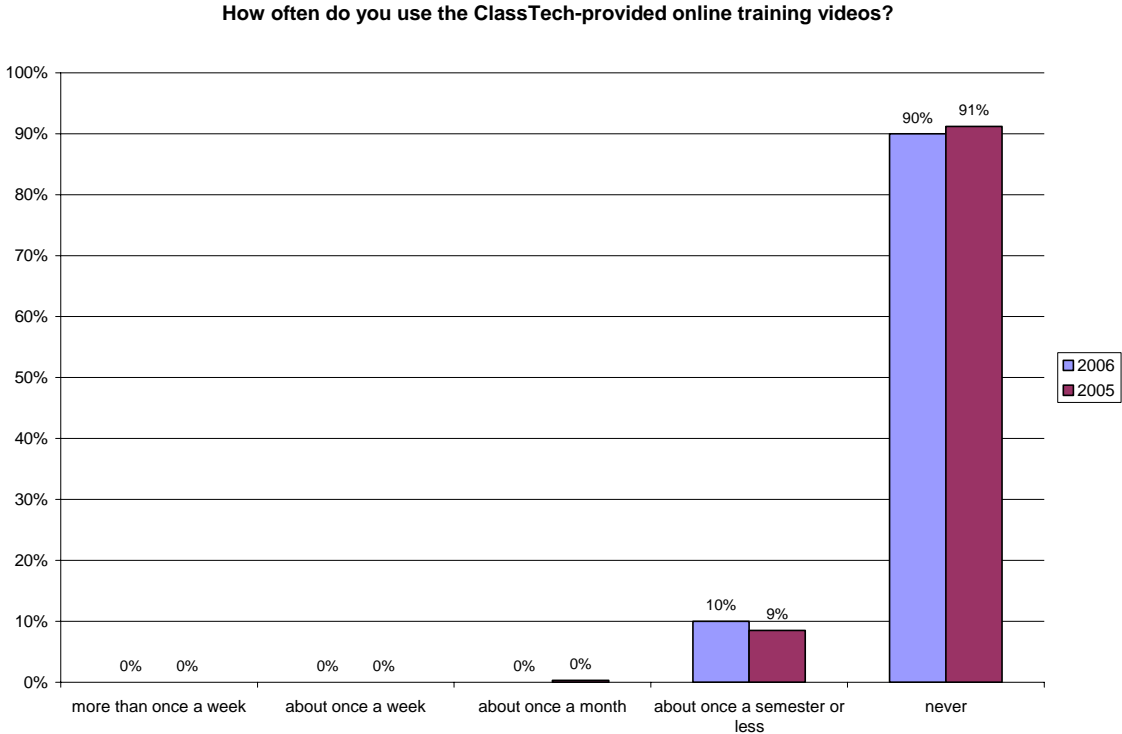


Figure 21



As noted in Figure 21, online images are the most frequently used asset on the CITES ClassTech website. This is true not only for the classroom users but the ClassTech staff as well. They often rely on the images as they correspond with users via the phone and e-mail, in real-time or asynchronously. At least half the respondents indicated that they are accessing these images.

Figure 22



The online videos were produced using Serious Magic’s Visual Communication authoring tool. Video segments average 3-5 minutes in length and cover general ITS classroom use as well as specific tasks such as connecting a laptop. ClassTech will be producing more informative, more professional-looking videos in 2006 that more directly address instructor needs.

Support

Three respondents commented in the open-ended portion that we need to do a better job of communicating about our services. Though few in number, these kinds of comments require us to re-consider the manner in which we communicate with potential users.

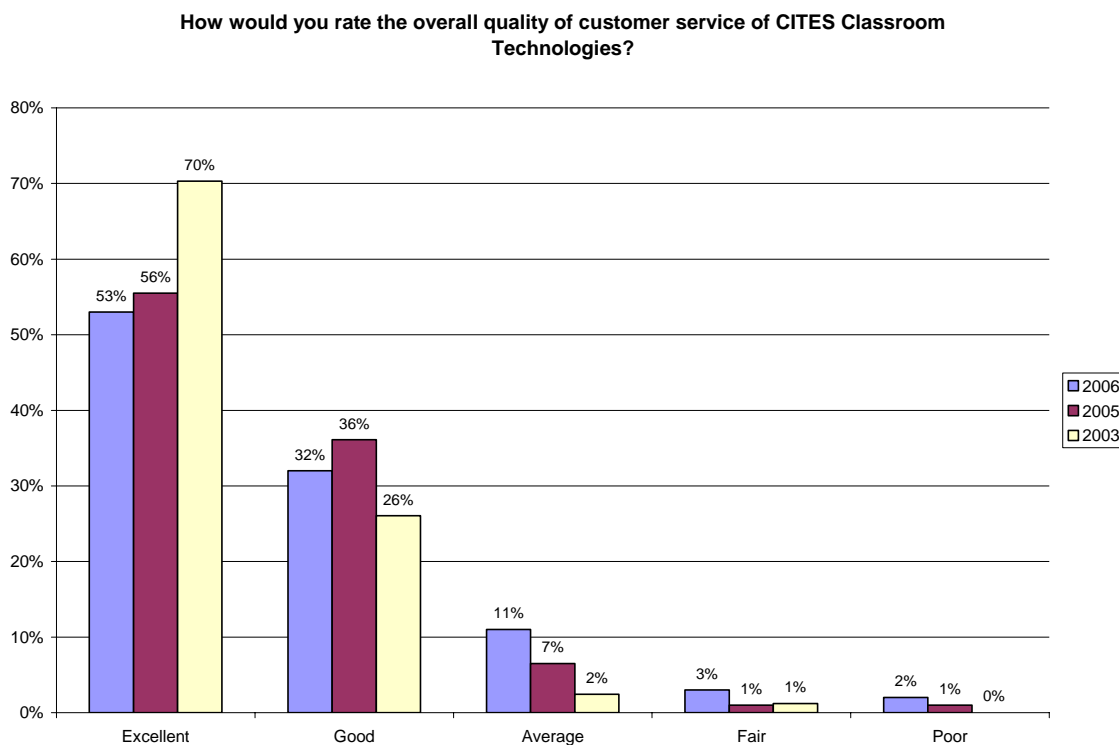
Comments Concerning Support

Table 10

| Comment Category                            | # of Respondents |
|---|------------------|
| Need a telephone in the classroom           | 4                |
| Need better documentation in the classrooms | 3                |
| Improve communication about services        | 3                |

## Quality of Customer Service

Figure 23



As shown in Figure 23, there continues to be a slight drop in customer service satisfaction (for the “Excellent” rating), and this year a drop for the “Good” rating as well. Although front-end phone support has been handled by a student staff since the fall of 2005, the quality of customer service should improve with additional training and experience. This was a new implementation this year and all members of the student staff were new to their roles.

### Comments Concerning CITES ClassTech Staff

In the open-ended portion of the survey, there were sixteen responses that were positive and expressed thanks. The comments concerned staff knowledge, willingness to help, responsiveness and pleasant demeanor. As the number of ITS classrooms increase and the level of usage increases campus-wide, ClassTech needs to reclaim its high standards of customer service and train its staff accordingly.

One comment suggested that support from ClassTech staff was inconsistent. Another said that a ClassTech staff person conveyed during an emergency call from a classroom that ClassTech could not send a staffperson at the request of a teaching assistant, that requests could only be made by faculty (of course, this definitely not our policy). A third respondent indicated that our staff were unresponsive.

Below are a few of the comments that were made in regards to ClassTech staff:

“Keep up the good work!”

"They are always helpful. Thanks!"

"I have found CITES to be very responsive and appreciate their speedy response and facilitation."

## Policies

### Non-Class Use

CITES ClassTech often receives calls from UIUC personnel who wish to use the ITS equipment for non-Timetable listed functions. With the demise of the Center for Teaching Excellence's Instructional Media Division, we now handle a greater number of these issues. In the spring of 2006, ClassTech modified its policy so that all events that serve the "academic mission" of the university will not be charged a usage fee for the audiovisual equipment. When an operator or assistance is required, there is a per hour charge for compensating our staff.

CITES ClassTech support hours were extended later into the evening, a change that began in the fall of 2005. One respondent who teaches in the evenings expressed their appreciation for this change.

### Security Codes

As has been mentioned previously, each classroom has a lock and an alarm system. A four-digit code is required for entry. Each classroom has its own unique code and ClassTech staff change it at the end of each semester. CITES ClassTech maintains a database for every instructor who has received a code. Information collected consists of e-mail addresses, department, course number, the days and times the course meets, and the location of the course. This information is frequently used to notify classroom users of any modifications to the equipment. It also is used for targeted e-mails and the creation of reports on the demographics of classroom usage.

### Comments on Security

Security is a balance between safeguarding the equipment and allowing for ease of use. This often results in a difficult compromise. Respondents have commented, this year and in previous surveys, that the security measures can be an impediment to instruction.

Fourteen respondents had general complaints about the padlocks. For example, they reported that the dials were too difficult to read, previous users put the locks on backwards, and the padlocks are less convenient than the electric locks and take longer to open. One respondent reported that ClassTech should install swipe card readers to make access easier, that it is too difficult to remember the codes, especially when teaching in multiple rooms.

Starting in 2005, a handful of classrooms with a limited amount of equipment—partial ITS classrooms—were left without entry locks. Equipment is still secured in the cabinets, but instructors no longer need an access code to use the audiovisual equipment. This is a pilot study and the use of these classrooms will be monitored.

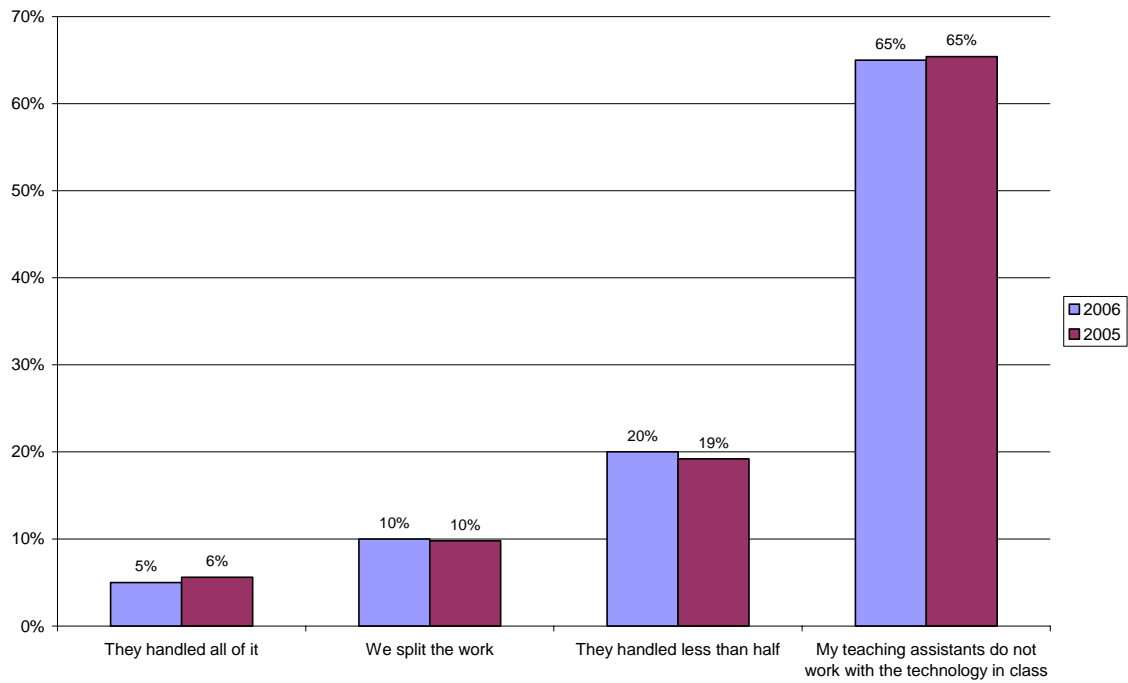
## Miscellaneous

### Role of Classroom Users

Over a third of teaching assistants are involved in classroom technology at some level.

Figure 24

**What amount of responsibility do your TA's take for instructional technology in class?**



## Appendix

## Appendix A

### List of ITS Classrooms Available during Survey

|                            |                                     |                         |
|----------------------------|-------------------------------------|-------------------------|
| Altgeld 245                | Everitt 165                         | Mumford 103             |
| Altgeld 314                | Everitt 241                         | Mumford 313             |
| Animal Science Lab 150     | Everitt 245                         | Natural History 228     |
| Architecture 120           | Everitt 260                         | Noyes 100               |
| Armory 101                 | Everitt 269                         | Noyes 161               |
| Armory 133                 | Foellinger Auditorium               | Noyes 162               |
| Armory 134                 | Foreign Language G-18               | Noyes 217               |
| Armory 136                 | Foreign Language G-20               | Nuclear Engineering 203 |
| Armory 137                 | Foreign Language G-24               | Psychology 23           |
| Armory 145                 | Foreign Language G-30               | Roger Adams Lab 116     |
| Armory 386                 | Foreign Language G-32               | Siebel Center 1103      |
| Armory 428                 | Foreign Language G-36               | Siebel Center 1105      |
| Armory 429                 | Foreign Language G-46               | Siebel Center 1109      |
| Armory 430                 | Foreign Language G-48               | Siebel Center 1111      |
| Armory 431                 | Freer 130                           | Siebel Center 1131      |
| Bevier 180                 | Gregory 100                         | Siebel Center 1214      |
| Bevier 242                 | Gregory 112                         | Siebel Center 1302      |
| Burrill 124                | Gregory 213                         | Siebel Center 1304      |
| Ceramics 218               | Gregory 223                         | Siebel Center 1404      |
| ChemAnnex 112              | Gregory 319                         | Speech & Hearing 110    |
| Davenport 113              | Henry Administration 138            | Speech & Hearing 112    |
| Davenport 329              | Huff 112                            | Talbot 103              |
| David Kinley Hall 114      | Huff 209                            | Temple Hoyne Buell 134  |
| David Kinley Hall 215      | Krannert Art Museum 62              | Transportation 101      |
| Digital Computing Lab 1310 | Law Auditorium                      | Transportation 103      |
| Digital Computing Lab 1320 | Law Room D                          | Transportation 112      |
| Education 002              | Library 66                          | Transportation 114      |
| Education 033              | Lincoln 106                         | Turner W109             |
| Education 037              | Lincoln 192                         | Wohlers 024             |
| Education 162              | Lincoln Theater (Room 100)          | Wohlers 130             |
| Education 323              | Loomis 141                          | Wohlers 141             |
| Education 385              | Loomis 151                          | Wohlers 166             |
| Education 389              | Materials Science & Engineering 100 | Wohlers 226             |
| Engineering Hall 106B1     | Materials Science & Engineering 119 | Wohlers 245             |
| Engineering Hall 106B3     | Materials Science & Engineering 305 |                         |
| Engineering Hall 106B6     | Mechanical Engineering 135          |                         |
| Engineering Hall 106B8     | Mechanical Engineering 153          |                         |
| English 160                | Mechanical Engineering 218          |                         |
| Everitt 151                | Mechanical Engineering 243          |                         |
|                            | Mechanical Engineering 253          |                         |
|                            | Mechanical Engineering 335          |                         |