

## **TASK FORCE MEMBERS**

Chris Rochet (Chair), Mark Cushman, Ray Galinsky, Gail Newton, Mark Sharp, Kara Weatherman

## **CHARGE**

The Task Force to Assess Instructional/Educational Technology had the following charge:

1. To evaluate the instructional/educational technology needs of the current programs in the School.
2. To assess whether our current instructional/educational technology infrastructure sufficiently supports these needs.
3. To provide recommendations for future investments in the instructional/educational technology to support the undergraduate, professional, and graduate programs of the School.

## **ACTIVITIES CARRIED OUT BY THE TASK FORCE TO ACQUIRE INFORMATION**

To meet this charge, the task force first set out to educate itself about a broad range of instructional technologies that are already available or will soon be implemented at Purdue University. Two individuals with expertise in instructional technology were invited to meet with the task force and present a summary of technological opportunities at Purdue:

David Eisert, Manager, Instructional Media and Emerging Technologies, Teaching and Learning Technologies (TLT), ITaP

Laura Arns, Associate Director and Research Scientist, Envision Center for Data Perceptualization Envision Center, ITaP

The meeting brought to light a number of innovative instructional technologies being implemented by the TLT or the Envision Center. The task force felt that many of these technologies would enhance instructional activities in the School of Pharmacy and Pharmaceutical Sciences. At the same time, it was felt that the majority of faculty and students in the School were probably unaware of most of these technologies.

The task force put together a survey to determine the level of awareness of and interest in various instructional technologies. Two surveys were prepared – one for the faculty, and one for students. The surveys consisted of questions relevant to a subset of instructional technologies presented by David Eisert and Laura Arns (some technologies were not included in the survey because the task force considered these to be of little interest to the faculty or students in the School). Both surveys were designed to determine whether faculty members or students were aware of a specific instructional technology and, if appropriate, whether they had acquired experience with this technology in their instructional or educational activities. Faculty members and students were then queried for their opinion on whether the technology might be or had been beneficial to their instructional/educational activities, as appropriate. Faculty members and students were given the opportunity to submit comments at the end of each survey.

There were 57 faculty respondents and 126 student respondents (5 BSPS, 88 PharmD, and 33 MS or PhD students). The following outline provides an overview of the information obtained from the two surveys (additional details are included in the Appendices at the end of this report).

### *Faculty Survey*

Awareness of instructional technologies: In general, faculty members had limited awareness of most instructional technologies available at Purdue University. This was especially true of new or emerging technologies, as expected. Most faculty members had limited awareness of HUBzero, Echo 360, Screencorder, Respondus, and Software Remote. In contrast, the majority of faculty members were aware of EInstruction (clickers). Approximately half of faculty members were aware of Adobe Connect/Adobe Presenter, Turnitin, and the Envision Center.

Interest in instructional technologies (among faculty members not having used these technologies): In general, faculty members felt that most of the technologies included in the survey could enhance their instructional activities. Most faculty members indicated that the following technologies might be beneficial: HUBzero, Adobe Connect/Adobe Presenter, Echo 360, Screencorder, and Software Remote. Interest in the following technologies was mixed: EInstruction (clickers), Turnitin, and the Envision Center. Most faculty members indicated that Respondus would NOT be useful for their instructional activities.

Assessment of the value of instructional technologies (among faculty members having used these technologies): In general, faculty members who had used a given technology considered the technology beneficial to their instructional activities. The following technologies were considered useful: Adobe Connect/Adobe Presenter, Turnitin, EInstruction (clickers), Respondus, and Software Remote. A small majority of faculty members indicated that HUBzero was NOT useful for their instructional activities.

### *Student Survey*

Awareness of instructional technologies: In general, students had limited awareness of most instructional technologies available at Purdue University. This was especially true of new or emerging technologies, as expected. Most students had limited awareness of HUBzero technology, Adobe Connect/Adobe Presenter, Turnitin, Echo 360, Screencorder software, and the Envision Center. In contrast, the majority of students were aware of ITaP's Boilercast MP3 Recordings, Pharmacy video recordings, and EInstruction (clickers).

Interest in instructional technologies (among students not having encountered these technologies): In general, students expressed the opinion that most of the technologies included in the survey could benefit their educational activities. Most students indicated that the following technologies might be useful: HUBzero technology, Adobe Connect/Adobe Presenter, Turnitin, Echo 360, and Screencorder software. Interest in the following technologies was mixed: EInstruction (clickers), Respondus, and Envision Center.

Assessment of the value of instructional technologies (among students having encountered these technologies): Most students considered the following technologies useful for their instructional activities: Adobe Connect/Adobe Presenter and Screencorder software. Approximately half of the students indicated that Turnitin was beneficial. Most students felt that the EInstruction (clicker) technology was NOT useful for their educational activities.

## **TASK FORCE RECOMMENDATIONS (IN ORDER OF PRIORITY)**

- (1) Address immediate needs relevant to updating instructional technologies in the School.

A number of immediate needs relevant to instructional technology were revealed by the survey responses. Some faculty indicated that the reliability of video conferencing should be improved to enhance real-time communication between instructors in West Lafayette and Indianapolis. In addition, the majority of students felt that the quality of video and audio lecture recordings should be improved (a list of detailed suggestions provided by the students is included in Appendix I). The task force recommends that the School's IT department address these short-term needs as quickly as possible.

Notes from Mark Sharp:

(i) Reliability issues that we've been having with videoconferencing seem to be due to the model of firewall in use at Wishard. It is an older firewall that doesn't support some of the newer videoconferencing protocols. Mark has been working with the IT staff at Wishard to try to improve things. One option is to buy a firewall traversal unit (dedicated firewall specifically for videoconferencing). He is also attempting to get ITaP involved so that we can set up a vpn connection between Wishard and Purdue and avoid the Wishard firewall altogether. Another option is to set up a virtual LAN where just the network PICs used for videoconferencing are outside the Wishard firewall.

(ii) Echo 360 should resolve almost all of the students' complaints regarding course video recordings.

(2) Work with ITaP and other academic units to identify and implement emerging technologies that could enhance the instructional activities of the School.

ITaP has a dedicated staff (including experts involved with TLT and the Envision Center) that is eager to consult with faculty members to implement new instructional technologies. The task force recommends that the School's IT department work closely with ITaP: not only is this approach essential to capitalize on expertise available on campus, but it will also avoid wasteful duplication of efforts. The School would also benefit by working closely with other academic units because ITaP has indicated that it will only implement some of its more resource-intensive instructional technologies if there is broad interest in these across campus.

(3) Assign new roles to the School's IT Department to facilitate a dialogue on instructional technologies with faculty members and students.

The survey responses revealed that the faculty and students have limited awareness of most instructional technologies, yet they strongly favor the implementation of new technologies in the classroom. Accordingly, we propose that the School's IT personnel develop mechanisms to enhance faculty and student awareness of current and emerging technologies (this proposal was strongly endorsed by faculty members in their survey responses). Examples of such mechanisms include regular technology demonstrations at Pharmacy faculty meetings, individual or group training workshops for faculty members and students, and the development and maintenance of a webpage dedicated to instructional technology. Information sessions in which users of specific technologies reported on their experiences would enable faculty members to weigh pros and cons before adopting new capabilities.

The **faculty survey** results suggest that topics to be addressed during faculty workshops might be prioritized as follows:

(i) Adobe Connect/Adobe Presenter and the Envision Center (these have been used by a significant number of faculty members and deemed beneficial by a majority of users)

(ii) Turnitin, EInstruction (clickers), Respondus, and Software Remote (although used by fewer faculty members, these have been deemed beneficial by a majority of users)

(iii) HUBzero, Echo 360, and Screencorder technology (these are of interest to a majority of faculty respondents)

The **student survey** results suggest that topics to be addressed during student workshops might be prioritized as follows:

(i) Adobe Connect/Adobe Presenter (used by a significant number of students and deemed beneficial by a majority of users)

## Final Report of the Task Force to Assess Instructional/Educational Technology

(ii) HUBzero technology, Turnitin, Echo 360, Screncorder technology, and the Envision Center (these are of interest to a majority of student respondents)

(4) Identify instructional technologies that will facilitate implementation of the new PharmD curriculum.

The new PharmD curriculum will involve dramatic changes to the pedagogical approach of the School. In turn, these changes will trigger a need for new instructional technologies. The School would benefit by having its IT department consult with course directors and the Curriculum Committee to identify and address these needs as the new curriculum is developed.

The following examples illustrate how the new curriculum will impact instructional technology needs in the School:

(i) The new curriculum will place a greater emphasis on in-class discussions and integration of material previously covered by students during independent study rather than on more conventional didactic lectures. As a result, there will be increased needs for online assessments (e.g. to ensure that students have mastered relevant background material before being granted access to the classroom) and for technologies to monitor in-class participation (e.g. clickers).

(ii) The new curriculum will involve increased mentoring by alumni and practitioners throughout the state and nation. In addition, Pharmacy Practice faculty from Indianapolis will be required to carry out their instructional activities at various times throughout the academic year (to comply with the modular format of the new curriculum) rather than during a small number of extended blocks of time. Both changes will result in an increased need for highly optimized video conferencing capabilities.

(5) Pursue various funding mechanisms to support the implementation of new instructional technologies.

Different instructional technologies will require commitments of time and funding on different scales. Some technologies are already in place and require no additional investments. For example, clicker technology has already been implemented in the School, and the only expense involved with use of clickers is that each student must purchase a unit for \$20. In contrast, the development of projects involving the Envision Center is substantially more costly. In cases such as this it is imperative that resources be identified to assist in development of the educational activity and, most importantly, that we implement some form of assessment to determine if the students truly learn as much or more than they would in the absence of the instructional technology. If the assessment component proves the utility of a given technology, then it may be justified to increase the scope of financial investment needed to fully utilize this type of capability.

There are possibilities for grant money that can be used to develop instructional technologies, and ITaP personnel appear more than willing to work with faculty to discover innovative ways of financing the implementation of these projects. Faculty members should be encouraged to apply for Digital Content Development Grants, perhaps with incentives such as matching funds from the Dean's office. (The survey results indicated that although most faculty members had limited awareness of the Digital Content Development Grants, the majority expressed an interest in participating in this program). It would also be beneficial to seek gift money in support of the School's efforts to develop new instructional technologies. Finally, revenue may be generated by marketing online educational content developed using the School's technologies (e.g. recorded lectures) to programs at other universities.

**APPENDICES**

Appendix I: Feedback provided by student respondents

An overall opinion expressed by the majority of the students was that video and audio recordings of lectures are very much appreciated. That being said, there was also the feeling that these could be improved. Most of the complaints centered on the poor quality of the audio recordings. Specific complaints included 1) PowerPoint video presentations are blurry; 2) if PowerPoint is not used, nothing can be seen; 3) some professors are turning off the microphone if classroom attendance is low; 4) video lectures should not cut off the computer window with the professor live window; and 5) the camera needs to be pointed up more to show more of the screen and less of the students' heads.

There were a few suggestions that were not of the "complaint variety." One was that an option to download multiple mp4s to an ipod from HookTV (presumably at the same time) would save time. Also, the ability to play back lectures at higher speeds (1.8x) is appreciated and should be preserved if new course recording systems are implemented.

Notes from Mark Sharp:

Downloading multiple mp4s at the same time is actually possible through the RSS feed that he makes available. Instructions are on the course recording FAQ page. He believes this will be retained with Echo 360.

## Final Report of the Task Force to Assess Instructional/Educational Technology

### Appendix II: Summary of survey details relevant to Echo 360 and Screencorder

#### **Faculty Survey:**

Only 9% of faculty is familiar with Echo 360. 83% of faculty feels Echo 360 will be useful for instructional activities.

Only 4% of faculty was familiar with the Screencorder software. After learning about Screencorder, 64% of faculty feels it would be useful for their instructional activities. Only one person who responded to the survey has used Screencorder, and that person found it useful.

#### **Student Survey:**

84% of Pharmacy students surveyed have used ITaP's Boilercast MP3 Recordings. 84% of the students have also used the Pharmacy video recordings. Only 3% of the students are aware that Boilercast will be replaced with Echo 360 beginning next fall.

91% of the students feel that Echo 360 will be useful for their learning activities.

Only 3% of the students surveyed were aware of the Screencorder software prior to taking the survey. After Learning about Screencorder, 70% of the students surveyed felt that it would be useful in their learning activities. Only 2 students of the 118 that completed the survey have been in a class where Screencorder was used, both students felt that it was useful in their learning activities.

#### **Summary:**

As faculty move more course materials online, systems like Screencorder and Echo 360 will become more important. All of the technology has been in place for a while, it is just a matter of making sure Faculty is aware of it, and making sure it is easy to use. Technology demos at faculty meetings, and individual or group training sessions would be beneficial.

Students seem to have a pretty good grasp of the technology. We could, however, do a better job of promoting some of the services available. We could also maybe offer a better way for students to provide feedback or get questions answered about technology.

Appendix III: Summary of survey details relevant to EInstruction and Respondus

*EInstruction*

**Faculty Survey:**

Clickers offer a way for students to respond anonymously to questions in class and have the results displayed instantaneously. The majority of the faculty (63%) were familiar with the use of clickers in the classroom. Of those who had no prior knowledge of them, 45% thought they would be useful and 55% did not. Of the faculty who already knew about clickers, 13% had actually used them in the classroom and 87% had not. Of those who had prior knowledge of them and had used them, 75% thought they were useful for instructional activities and 25% did not. Of those who had prior knowledge of them but had never used them, 73% thought they would be useful and 27% did not. The "bottom line" seems to be that three-quarters of the faculty members who already knew about clickers thought they would be useful, but 55% of the faculty members who had no prior knowledge of them thought they would be of no value after reading a short description of them.

**Student Survey:**

The opinions of the students about clickers were more negative than those of the faculty. The majority of the students (70%) were familiar with the use of clickers in the classroom. Of the students who were already familiar with them but had not used them in class, 39% thought they would facilitate learning and 61% thought they would not. Of the students who were already familiar with them and had actually used them in class, 23% thought they facilitated learning and 77% thought they did not. So the trend seems to be that as more students actually use clickers, fewer of them think they actually have value. This is in line with the fact that of the students who had no prior knowledge of clickers and had never used them, 60% thought they would facilitate learning after reading a short description of them.

*EInstruction: Necessary Investments*

The main expense involved with use of clickers is that each student must purchase one for \$20. There is no expense to the instructor. We currently have the technology to implement clickers and the decision to use or not to use them is up to the instructor(s) involved in teaching the class. No future investment is necessary except for the students.

*Respondus*

**Faculty Survey:**

Respondus is a tool for writing examinations offline in Windows without viewing the underlying HTML, and then uploading them directly in Blackboard. Only 10% of the faculty were familiar with Respondus. Of those, 60% had actually used Respondus and all of them thought it was useful. Of the faculty who were familiar with Respondus but had not actually used it, 60% thought it would be useful and 40% did not. Of the faculty members who had no prior knowledge of Respondus (90%), 43% thought it would be useful after reading a short description of it, and 57% thought it would not be useful. The "bottom line" with Respondus is that it is necessary if examinations cannot be given in the classroom, but it is far from ideal because exam security cannot be guaranteed. No further investment is required for use of this tool.

Appendix IV: Summary of survey details relevant to the Envision Center

Questions 38 – 46 on the faculty survey and questions 30 – 35 on the student survey dealt with the Envision Center located in Stewart Center which focuses on novel computer graphics, advanced visualization and human computer interface technologies.

To summarize the faculty responses:

- a. More than half (52%) of the responding faculty (n=50) indicated that they were not familiar with the Envision Center, although it has been on campus since 2004.
  - a. Of this group, 88% have never seen or experienced a VR environment themselves
  - b. Of those who were familiar with the Envision center, 64% had experienced an educational model created in a VR environment
- b. When asked if they would be interested in learning more about VR environments, 49% of the faculty indicated that they would like to know more about this technology
- c. 41% of the responding faculty indicated that they could incorporate this type of technology in their current course offerings
- d. 79% of the responders were NOT aware of the time / finances required to develop materials in a VR environment
- e. 41% of faculty indicated they would be willing to teach a portion of their course in the Envision Center (full simulation environment). 55% indicated they would use if the technology could be brought to their current classroom in portable form
- f. 27% of responders indicated that haptics (sense of touch) would be something that could be used based on their current course offerings.

To summarize the student responses:

- a. Slightly less than half (42%) of responding students (n=121) were aware of the Envision center on the campus
  - i. Of the group that was not aware of the Envision center, only 13% had ever experienced an educational activity in a VR environment
  - ii. Of the group that were familiar with the Envision center, 52% had experienced an educational activity of some type in VR
- b. 69% of the students surveyed felt that some component of the educational material in pharmacy courses could be taught in a hands-on or immersive environment like VR
- c. 77% of students indicated they would be willing to travel to the Envision center to complete a lab or activity in a VR environment, although 81% of them indicated that they would favor a portable version, set up in a classroom or lab on this part of campus.

Based on the results of this section of the survey, it appears that there is sufficient interest by a large portion of the faculty and an even larger percentage of the pharmacy students to explore the use of VR environments as a teaching / learning tool in some areas of the pharmacy curriculum. An initial recommendation would be to have a demonstration of the technology along with a frank discussion of the time and cost of this type of technology. Some faculty members in the School of Pharmacy currently are involved in utilizing this technology and could provide both examples of the technology and details of cost, time and other variables that are not so readily obvious when discussing this technology.

A benefit to the School regarding VR environments is that Purdue University already has a dedicated staff that focuses on the development of this type of technology. They appear to be interested in working with faculty members from various departments on campus, and have had experience in dealing with situations related to pharmacy practice. This greatly reduces the need for staff and high-end technology purchases for the development of this type of technology for the School, but does not address the underlying cost of both faculty time (for development and oversight purposes) and the cost of the services of the Envision center itself. It appears that there are possibilities for grant money that can be used to develop content, and the faculty and staff at the Envision Center appear more than happy to work with faculty to try and discover

innovative ways of financing the development and implementation of these projects. From the survey responses, the faculty seems to favor developing VR materials that could be taught in portable fashion, by bringing the VR environment to our current lecture and lab facilities, although a large number indicated they would be willing to move their course to the Envision center if necessary. Student responders also preferred the portable learning environment, but also would be willing to travel to the Envision center if needed. This could pose a financial consideration for the School in the form of needing to purchase the various hardware aspects needed to implement the portable environment as well as assure sufficient amount of physical space, computing resources and computer support staff time and effort to support this type of teaching / learning exercises if moved to this part of campus.

It appears that it would be of benefit to investigate this type of technology, both from faculty and student interest. However, it is imperative that we identify resources for faculty to assist in development of this type of educational activity and most importantly, that we implement some form of assessment to determine if the students truly learn as much or more than they would from pure didactic and/or true hands-on learning experiences in the lab setting. If the assessment component proves the utility of this type of technology, we could then consider the scope of financial investment needed to fully utilize this type of technology.

Appendix V: Survey results (starting on the next page)

1<sup>st</sup> survey: Faculty (54 questions)

2<sup>nd</sup> survey: Students (36 questions)

# 1. HUBzeroAre you familiar with Purdue's HUBzero technology?

#	Answer	Bar	Response	%
1	Yes		7	13%
2	No		46	87%
	Total		53	

Statistic	Value
Mean	1.87
Variance	0.12
Standard Deviation	0.34
Total Responses	53

2. A "hub"™ is a web-based collaboration environment with interactive simulation tools, online presentations, and mechanisms for content tagging, user support, and user feedback. The signature service of a hub is its ability to deliver interactive, graphical simulation tools through an ordinary web browser. Unlike a portal, the tools in a hub are interactive; you can zoom in on a graph, rotate a molecule, probe isosurfaces of a 3D volume interactively, without having to wait for a web page to refresh. More information is available at the following weblink: <https://hubzero.org/tour/features#tools> Do you think Purdue's™ HUBzero technology would be useful for your instructional activities?

#	Answer	Bar	Response	%
1	Yes		31	72%
2	No		12	28%
	Total		43	

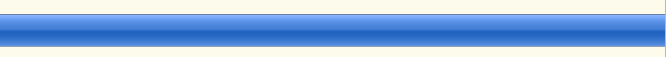
Statistic	Value
Mean	1.28
Variance	0.21
Standard Deviation	0.45
Total Responses	43

### 3. Have you ever used Purdue's HUBzero technology?

#	Answer	Bar	Response	%
1	Yes		5	71%
2	No		2	29%
	Total		7	

Statistic	Value
Mean	1.29
Variance	0.24
Standard Deviation	0.49
Total Responses	7

4. Do you think Purdue's HUBzero technology would be useful for your instructional activities?

#	Answer	Bar	Response	%
1	Yes		2	100%
2	No		0	0%
	Total		2	

Statistic	Value
Mean	1.00
Variance	0.00
Standard Deviation	0.00
Total Responses	2

5. Was Purdue's HUBzero technology useful for your instructional activities?

#	Answer	Bar	Response	%
1	Yes		2	40%
2	No		3	60%
	Total		5	

Statistic	Value
Mean	1.60
Variance	0.30
Standard Deviation	0.55
Total Responses	5

6. Adobe Acrobat Connect Professional and Adobe Presenter Are you familiar with Adobe Connect or Adobe Presenter?

#	Answer	Bar	Response	%
1	Yes		25	50%
2	No		25	50%
	Total		50	

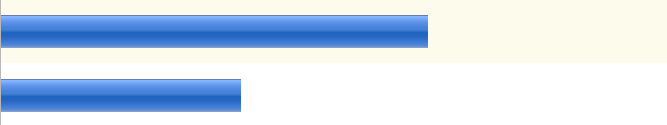
Statistic	Value
Mean	1.50
Variance	0.26
Standard Deviation	0.51
Total Responses	50

7. Adobe Connect is a rich Web communication system that lets instructors reach an audience anytime with engaging multimedia content. Currently, two of its system components, Adobe Acrobat Connect Professional and Adobe Presenter, are available for use at Purdue University. Because Connect is deployed using Adobe Flash Player, already installed on more than 98% of browsers, audiences can join Connect online meetings, courses, and presentations instantly. Connect can be used for distance learning, professional development, and collaboration. Do you think Adobe Connect/Presenter would be useful for your instructional activities?

#	Answer	Bar	Response	%
1	Yes		15	60%
2	No		10	40%
	Total		25	

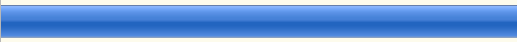

Statistic	Value
Mean	1.40
Variance	0.25
Standard Deviation	0.50
Total Responses	25

## 8. Have you ever used Adobe Connect or Presenter

#	Answer	Bar	Response	%
1	Yes		16	64%
2	No		9	36%
	Total		25	

Statistic	Value
Mean	1.36
Variance	0.24
Standard Deviation	0.49
Total Responses	25

9. Do you think Abobe Connect or Presenter would be useful for your instructional activities?

#	Answer	Bar	Response	%
1	Yes		7	78%
2	No		2	22%
	Total		9	

Statistic	Value
Mean	1.22
Variance	0.19
Standard Deviation	0.44
Total Responses	9

10. Do you think Adobe Connect or Presenter was useful for your instructional activities?

#	Answer	Bar	Response	%
1	Yes		11	69%
2	No		5	31%
	Total		16	

Statistic	Value
Mean	1.31
Variance	0.23
Standard Deviation	0.48
Total Responses	16

# 11. Turnitin – Plagiarism Detection Are you familiar with Turnitin?

#	Answer	Bar	Response	%
1	Yes		26	52%
2	No		24	48%
	Total		50	

Statistic	Value
Mean	1.48
Variance	0.25
Standard Deviation	0.50
Total Responses	50

12. Turnitin is a web-based service designed to help instructors identify and prevent instances of plagiarism. Students electronically submit papers, and Turnitin compares student documents to pages of content on the Internet, databases and other documents. Matched texts are highlighted and linked to the original source allowing instructors to determine if the document was plagiarized. Turnitin assists students in properly citing sources and maintaining academic integrity. For more information about Turnitin, visit <http://www.itap.purdue.edu/tlt/turnitin/> Do you think Turnitin would be useful for your instructional activities?

#	Answer	Bar	Response	%
1	Yes		11	46%
2	No		13	54%
	Total		24	

Statistic	Value
Mean	1.54
Variance	0.26
Standard Deviation	0.51
Total Responses	24

# 13. Have you ever used Turnitin?

#	Answer	Bar	Response	%
1	Yes		6	24%
2	No		19	76%
	Total		25	



Statistic	Value
Mean	1.76
Variance	0.19
Standard Deviation	0.44
Total Responses	25

14. Do you think Turnitin would be useful for your instructional activities?

#	Answer	Bar	Response	%
1	Yes		15	75%
2	No		5	25%
	Total		20	

Statistic	Value
Mean	1.25
Variance	0.20
Standard Deviation	0.44
Total Responses	20

# 15. Do you think Turnitin was useful for your instructional activities?

#	Answer	Bar	Response	%
1	Yes		5	83%
2	No		1	17%
	Total		6	



Statistic	Value
Mean	1.17
Variance	0.17
Standard Deviation	0.41
Total Responses	6

16. Echo 360 Are you familiar with the Echo 360 system that will be replacing Boilercast in the fall of 2009?

#	Answer	Bar	Response	%
1	Yes		4	8%
2	No		46	92%
	Total		50	



Statistic	Value
Mean	1.92
Variance	0.08
Standard Deviation	0.27
Total Responses	50

17. Do you think Echo 360 will be useful for your instructional activities?

#	Answer	Bar	Response	%
1	Yes		42	84%
2	No		8	16%
	Total		50	

Statistic	Value
Mean	1.16
Variance	0.14
Standard Deviation	0.37
Total Responses	50

18. ScreencorderAre you familiar with the Screncorder software available through ITaP?

#	Answer	Bar	Response	%
1	Yes		2	4%
2	No		49	96%
	Total		51	

Statistic	Value
Mean	1.96
Variance	0.04
Standard Deviation	0.20
Total Responses	51

**19.** Ideal for distance learning, training, and support videos and demonstrations, ScreenCorder captures and records all desktop activity in minutes. ScreenCorder allows users to enhance video recordings with step-by-step audio instructions and graphic speech bubbles. Easily correct audio and video or add new material to existing recordings and export recordings to multiple video formats, including Flash using ScreenCorder. To request a copy of ScreenCorder, please send an e-mail to [tlit consulting@purdue.edu](mailto:tlit consulting@purdue.edu). Go to <http://www.itap.purdue.edu/tlit/screencorder/> to learn more about ScreenCorder. Do you think the ScreenCorder Software would be useful for your instructional activities?

#	Answer	Bar	Response	%
1	Yes		32	67%
2	No		16	33%
	Total		48	

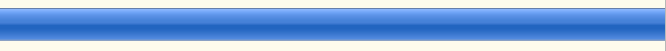
Statistic	Value
Mean	1.33
Variance	0.23
Standard Deviation	0.48
Total Responses	48

20. Have you ever used the Screencorder software?

#	Answer	Bar	Response	%
1	Yes		1	33%
2	No		2	67%
	Total		3	



Statistic	Value
Mean	1.67
Variance	0.33
Standard Deviation	0.58
Total Responses	3

21. Do you think the Screencorder Software would be useful for your instructional activities?

#	Answer	Bar	Response	%
1	Yes		1	100%
2	No		0	0%
	Total		1	

Statistic	Value
Mean	1.00
Variance	0.00
Standard Deviation	0.00
Total Responses	1

22. Do you think the Screencorder Software was useful for your instructional activities?

#	Answer	Bar	Response	%
1	Yes		1	50%
2	No		1	50%
	Total		2	

Statistic	Value
Mean	1.50
Variance	0.50
Standard Deviation	0.71
Total Responses	2

23. EInstruction (clickers) Are you familiar with the use of clickers in the classroom?

#	Answer	Bar	Response	%
1	Yes		32	63%
2	No		19	37%
	Total		51	

Statistic	Value
Mean	1.37
Variance	0.24
Standard Deviation	0.49
Total Responses	51

24. The eInstruction Classroom Performance System is a versatile remote system that involves the use of student-held clickers and allows quizzing, polling, and attendance taking instantaneously in the classroom. The eInstruction system promotes interactivity among students and provides instant feedback to instructors and students. Some of the disadvantages include technical problems with use of the clickers and the cost of the clickers. For more information on eInstruction, go to <http://www.itap.purdue.edu/tlt/einstruction/> Do you think clickers would be useful for your instructional activities?

#	Answer	Bar	Response	%
1	Yes		9	43%
2	No		12	57%
	Total		21	

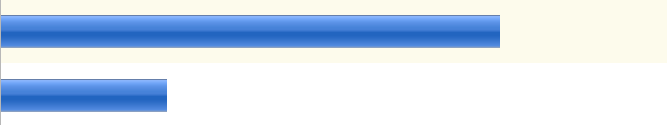
Statistic	Value
Mean	1.57
Variance	0.26
Standard Deviation	0.51
Total Responses	21

25. Have you ever used clickers in your classroom?

#	Answer	Bar	Response	%
1	Yes		4	12%
2	No		29	88%
	Total		33	

Statistic	Value
Mean	1.88
Variance	0.11
Standard Deviation	0.33
Total Responses	33

26. Do you think clickers would be useful for your instructional activities?

#	Answer	Bar	Response	%
1	Yes		21	75%
2	No		7	25%
	Total		28	

Statistic	Value
Mean	1.25
Variance	0.19
Standard Deviation	0.44
Total Responses	28

27. Do you think clickers were useful for your instructional activities?

#	Answer	Bar	Response	%
1	Yes	A horizontal bar chart with a blue bar extending to the value 3 on a scale of 0 to 4.	3	75%
2	No	A horizontal bar chart with a blue bar extending to the value 1 on a scale of 0 to 4.	1	25%
	Total		4	

Statistic	Value
Mean	1.25
Variance	0.25
Standard Deviation	0.50
Total Responses	4

## 28. RespondusAre you familiar with Respondus?

#	Answer	Bar	Response	%
1	Yes		5	10%
2	No		45	90%
	Total		50	

Statistic	Value
Mean	1.90
Variance	0.09
Standard Deviation	0.30
Total Responses	50

29. Respondus is a tool for creating and managing exams that can be printed to paper or published directly to Blackboard. The exams are created offline in Windows and graphics, audio, and video can be incorporated without viewing the underlying HTML. Exam security is not guaranteed, but it can be used to see if students have at least reviewed the material. It is a better tool for exam writing than the one in Blackboard. Do you think Respondus would be useful for your instructional activities?

#	Answer	Bar	Response	%
1	Yes		19	42%
2	No		26	58%
	Total		45	


Statistic	Value
Mean	1.58
Variance	0.25
Standard Deviation	0.50
Total Responses	45

### 30. Have you ever used Respondus?

#	Answer	Bar	Response	%
1	Yes		3	60%
2	No		2	40%
	Total		5	


Statistic	Value
Mean	1.40
Variance	0.30
Standard Deviation	0.55
Total Responses	5

31. Do you think Respondus would be useful for your instructional activities?

#	Answer	Bar	Response	%
1	Yes		0	0%
2	No		2	100%
	Total		2	

Statistic	Value
Mean	2.00
Variance	0.00
Standard Deviation	0.00
Total Responses	2

32. Do you think Respondus was useful for your instructional activities?

#	Answer	Bar	Response	%
1	Yes		3	100%
2	No		0	0%
	Total		3	

Statistic	Value
Mean	1.00
Variance	0.00
Standard Deviation	0.00
Total Responses	3

### 33. Software RemoteAre you familiar with Software Remote?

#	Answer	Bar	Response	%
1	Yes		6	12%
2	No		44	88%
	Total		50	


Statistic	Value
Mean	1.88
Variance	0.11
Standard Deviation	0.33
Total Responses	50

**34.** Software Remote provides free access to a wide variety of Windows-based applications from any computer with a Web browser and internet connection. When accessing a program using this service, the program appears to run on the desktop, but it is actually running on the Software Remote server. Students can access software for use in a course without having to pay for it. Do you think Software Remote would benefit your instructional activities?

#	Answer	Bar	Response	%
1	Yes		27	61%
2	No		17	39%
	Total		44	

Statistic	Value
Mean	1.39
Variance	0.24
Standard Deviation	0.49
Total Responses	44

35. Have you used any software that is available on Software Remote?

#	Answer	Bar	Response	%
1	Yes		6	100%
2	No		0	0%
	Total		6	

Statistic	Value
Mean	1.00
Variance	0.00
Standard Deviation	0.00
Total Responses	6

36. Do you think Software Remote would benefit your instructional activities?

#	Answer	Bar	Response	%
1	Yes		0	0%
2	No		0	0%
	Total		0	

Statistic	Value
Mean	0.00
Variance	0.00
Standard Deviation	0.00
Total Responses	0

37. Do you think Software Remote benefited your instructional activities?

#	Answer	Bar	Response	%
1	Yes		4	67%
2	No		2	33%
	Total		6	



Statistic	Value
Mean	1.33
Variance	0.27
Standard Deviation	0.52
Total Responses	6

**38.** Envision Center Are you familiar with the Envision center which is located between Stewart Center and the Purdue Memorial Union?

#	Answer	Bar	Response	%
1	Yes		24	48%
2	No		26	52%
	Total		50	

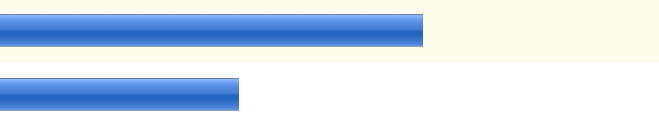
Statistic	Value
Mean	1.52
Variance	0.25
Standard Deviation	0.50
Total Responses	50

**39.** The Envision Center was created to serve, support and collaborate with faculty, students and industry to explore novel computer graphics, advanced visualization and human computer interface technologies, including auditory and haptic technology. These technologies are integrated with advanced computing and networking to create high-end immersive visualization environments which can be used to communicate complex research results to students, researchers and the general public. Have you seen or experienced an educational model created in a virtual reality environment?

#	Answer	Bar	Response	%
1	Yes		3	12%
2	No		22	88%
	Total		25	

Statistic	Value
Mean	1.88
Variance	0.11
Standard Deviation	0.33
Total Responses	25

40. Have you seen or experienced an educational model created in a virtual reality environment?

#	Answer	Bar	Response	%
1	Yes		14	64%
2	No		8	36%
	Total		22	

Statistic	Value
Mean	1.36
Variance	0.24
Standard Deviation	0.49
Total Responses	22

**41.** Would you be interested in learning more about virtual reality environments and how Purdue's Envision center could assist you with development of this type of content for your course?

#	Answer	Bar	Response	%
1	Yes		23	49%
2	No		24	51%
	Total		47	

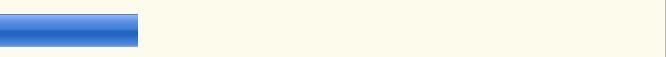

Statistic	Value
Mean	1.51
Variance	0.26
Standard Deviation	0.51
Total Responses	47

42. There are several examples of the use of virtual reality environments that have been created by the Envision Center which can be seen at [http://www.envision.purdue.edu/projects\\_details.html](http://www.envision.purdue.edu/projects_details.html) Do any of the teaching / learning objectives for your course lend themselves to hands-on or immersive environments?

#	Answer	Bar	Response	%
1	Yes		20	41%
2	No		29	59%
	Total		49	

Statistic	Value
Mean	1.59
Variance	0.25
Standard Deviation	0.50
Total Responses	49

43. Are you aware of the time and financial requirements that are necessary to develop modules in a virtual reality environment?

#	Answer	Bar	Response	%
1	Yes		10	21%
2	No		38	79%
	Total		48	

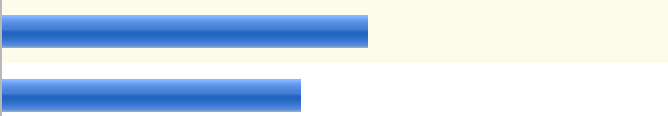
Statistic	Value
Mean	1.79
Variance	0.17
Standard Deviation	0.41
Total Responses	48

**44.** Virtual reality environments generally take place in a large, multi-screen immersive environment. Would you be willing to teach a course (or portion of a course) in Purdue's existing Envision center?

#	Answer	Bar	Response	%
1	Yes		20	41%
2	No		29	59%
	Total		49	

Statistic	Value
Mean	1.59
Variance	0.25
Standard Deviation	0.50
Total Responses	49

45. Current technology allows for portable immersive environments that can be set up outside of the Envision center. Would you be willing to consider the use of virtual reality in your course(s) if you could carry out the exercises in your classroom/lab?

#	Answer	Bar	Response	%
1	Yes		27	55%
2	No		22	45%
	Total		49	

Statistic	Value
Mean	1.45
Variance	0.25
Standard Deviation	0.50
Total Responses	49

**46.** Haptics involves the use of technology which allows a user to experience the sense of touch. Would you be able to utilize haptic technology to develop teaching / learning modules as part of your current course offerings?

#	Answer	Bar	Response	%
1	Yes		13	27%
2	No		36	73%
	Total		49	

Statistic	Value
Mean	1.73
Variance	0.20
Standard Deviation	0.45
Total Responses	49

**47.** Digital Content Development Grants Are you familiar with the Digital Content Development Grants program?

#	Answer	Bar	Response	%
1	Yes		10	20%
2	No		39	80%
	Total		49	

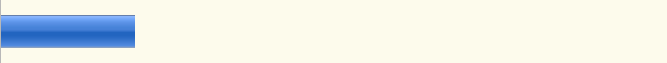

Statistic	Value
Mean	1.80
Variance	0.17
Standard Deviation	0.41
Total Responses	49

**48.** The TLT department searches for innovative approaches to learning through experimentation with new teaching ideas and technology. The annual Digital Content Development Grants program supports faculty projects that increase instructional effectiveness through the use of digital and online technology. All projects should focus on the use of technology and innovation for implementation and continued use. Visit <http://www.itap.purdue.edu/tlt/idc/grants.cfm> for more information. Would you be interested in participating in the Digital Content Development Grants program in the future?

#	Answer	Bar	Response	%
1	Yes		20	51%
2	No		19	49%
	Total		39	

Statistic	Value
Mean	1.49
Variance	0.26
Standard Deviation	0.51
Total Responses	39

49. Have you ever participated in the Digital Content Development Grants program?

#	Answer	Bar	Response	%
1	Yes		2	20%
2	No		8	80%
	Total		10	

Statistic	Value
Mean	1.80
Variance	0.18
Standard Deviation	0.42
Total Responses	10

**50.** Would you be interested in participating in the Digital Content Development Grants program in the future?

#	Answer	Bar	Response	%
1	Yes		5	63%
2	No		3	38%
	Total		8	

Statistic	Value
Mean	1.38
Variance	0.27
Standard Deviation	0.52
Total Responses	8

**51.** The School of Pharmacy and Pharmaceutical Sciences is considering installing a second projector screen in RPH 172. Do you think this installation would benefit your instructional activities?

#	Answer	Bar	Response	%
1	Yes		30	63%
2	No		18	38%
	Total		48	

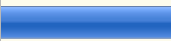



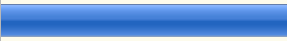

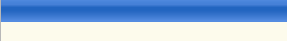
Statistic	Value
Mean	1.38
Variance	0.24
Standard Deviation	0.49
Total Responses	48

**52.** One approach to dealing with the growing complexity of instructional technology may be to assign new roles to the School's IT Department. Examples of these roles might be regular updates on new technologies at Pharmacy faculty meetings, training workshops, and the development and maintenance of a webpage dedicated to instructional technology. Do you think such a reorganization of the IT Department's responsibilities would benefit your instructional activities?

#	Answer	Bar	Response	%
1	Yes		40	82%
2	No		9	18%
	Total		49	

Statistic	Value
Mean	1.18
Variance	0.15
Standard Deviation	0.39
Total Responses	49

**53.** Would you be interested in learning more about the following opportunities in instructional innovation: LON-CAPA Blackboard Scholar OpenMind Multipoint Conferencing Digital Learning Collaboratory Instructional Development Center (Consulting and Training) Small Group Instructional Diagnosis (SGID)

#	Answer	Bar	Response	%
1	LON-CAPA		6	26%
2	Blackboard Scholar		17	74%
3	OpenMind		9	39%
4	Multipoint Conferencing		13	57%
5	Digital Learning Collaboratory		10	43%
6	Instructional Development Center (Consulting and Training)		8	35%
7	Small Group Instructional Diagnosis (SGID)		10	43%
8	Suggest something you would like to learn about		0	0%

**Suggest something you would like to learn about**

Statistic	Value
Total Responses	23

54. Please feel free to provide additional comments or suggestions relevant to instructional technology in the School of Pharmacy and Pharmaceutical Sciences.

### Text Response




There are a few items that I am somewhat interested in, but would like to know more from colleagues who are currently using them. Perhaps a shared experiences Q&A might also be a way to gather better feedback when looking to balance cost/benefit ratios.

Improving reliability of video conferencing as an option for Indy faculty

Lots of the questions on this survey really do not have simple "yes" or "no" answers; they are really only "yes" with qualifications that may not really be met. The question about Pharmacy IT staff seems odd. Mark Sharp already seems to do a good job in such activities. The remaining IT staff would generally NOT be a resource I would turn to for useful information, especially with the departure of David Allen.



Statistic	Value
Total Responses	3

1. Please indicate your classification:

#	Answer	Bar	Response	%
1	BSPS student		5	4%
2	PharmD student		88	70%
3	MS or PhD student		33	26%
	Total		126	

Statistic	Value
Mean	2.22
Variance	0.25
Standard Deviation	0.50
Total Responses	126

## 2. HUBzeroAre you familiar with Purdue's HUBzero technology?

#	Answer	Bar	Response	%
1	Yes		2	2%
2	No		128	98%
	Total		130	

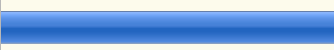

Statistic	Value
Mean	1.98
Variance	0.02
Standard Deviation	0.12
Total Responses	130

3. A "hub"™ is a web-based collaboration environment with interactive simulation tools, online presentations, and mechanisms for content tagging, user support, and user feedback. The signature service of a hub is its ability to deliver interactive, graphical simulation tools through an ordinary web browser. Unlike a portal, the tools in a hub are interactive; you can zoom in on a graph, rotate a molecule, probe isosurfaces of a 3D volume interactively, without having to wait for a web page to refresh. More information is available at the following weblink: <https://hubzero.org/tour/features#tools> Do you think Purdue's™ HUBzero technology would be useful for your learning activities?

#	Answer	Bar	Response	%
1	Yes		105	87%
2	No		16	13%
	Total		121	


Statistic	Value
Mean	1.13
Variance	0.12
Standard Deviation	0.34
Total Responses	121

4. Have you ever used Purdue's HUBzero technology?

#	Answer	Bar	Response	%
1	Yes		1	50%
2	No		1	50%
	Total		2	


Statistic	Value
Mean	1.50
Variance	0.50
Standard Deviation	0.71
Total Responses	2

5. Do you think Purdue's HUBzero technology would be useful for your learning activities?

#	Answer	Bar	Response	%
1	Yes		1	100%
2	No		0	0%
	Total		1	

Statistic	Value
Mean	1.00
Variance	0.00
Standard Deviation	0.00
Total Responses	1

6. Was Purdue's HUBzero technology useful for your learning activities?

#	Answer	Bar	Response	%
1	Yes		1	100%
2	No		0	0%
	Total		1	

Statistic	Value
Mean	1.00
Variance	0.00
Standard Deviation	0.00
Total Responses	1

7. Adobe Acrobat Connect Professional and Adobe Presenter Are you familiar with Adobe Connect or Adobe Presenter?

#	Answer	Bar	Response	%
1	Yes		39	32%
2	No		84	68%
	Total		123	

Statistic	Value
Mean	1.68
Variance	0.22
Standard Deviation	0.47
Total Responses	123

8. Adobe Connect is a rich Web communication system that lets instructors reach an audience anytime with engaging multimedia content. Currently, two of its system components, Adobe Acrobat Connect Professional and Adobe Presenter, are available for use at Purdue University. Because Connect is deployed using Adobe Flash Player, already installed on more than 98% of browsers, audiences can join Connect online meetings, courses, and presentations instantly. Connect can be used for distance learning, professional development, and collaboration. Do you think Adobe Connect/Presenter would be useful for your learning activities?

#	Answer	Bar	Response	%
1	Yes		71	86%
2	No		12	14%
	Total		83	



Statistic	Value
Mean	1.14
Variance	0.13
Standard Deviation	0.35
Total Responses	83

9. Have you ever used Adobe Connect or Presenter?

#	Answer	Bar	Response	%
1	Yes		14	36%
2	No		25	64%
	Total		39	

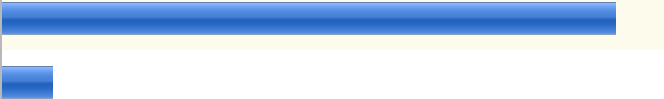
Statistic	Value
Mean	1.64
Variance	0.24
Standard Deviation	0.49
Total Responses	39

10. Do you think Abobe Connect or Presenter would be useful for your learning activities?

#	Answer	Bar	Response	%
1	Yes		21	88%
2	No		3	13%
	Total		24	

Statistic	Value
Mean	1.13
Variance	0.11
Standard Deviation	0.34
Total Responses	24

# 11. Do you think Adobe Connect or Presenter was useful for your learning activities?

#	Answer	Bar	Response	%
1	Yes		12	92%
2	No		1	8%
	Total		13	

Statistic	Value
Mean	1.08
Variance	0.08
Standard Deviation	0.28
Total Responses	13

# 12. Turnitin – Plagiarism Detection Are you familiar with Turnitin?

#	Answer	Bar	Response	%
1	Yes		39	32%
2	No		82	68%
	Total		121	

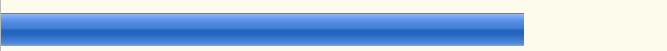

Statistic	Value
Mean	1.68
Variance	0.22
Standard Deviation	0.47
Total Responses	121

13. Have any of your instructors ever used Turnitin?

#	Answer	Bar	Response	%
1	Yes		28	76%
2	No		9	24%
	Total		37	

Statistic	Value
Mean	1.24
Variance	0.19
Standard Deviation	0.43
Total Responses	37

14. Do you think Turnitin would be a useful tool to help you properly cite the literature in written reports?

#	Answer	Bar	Response	%
1	Yes		73	78%
2	No		20	22%
	Total		93	


Statistic	Value
Mean	1.22
Variance	0.17
Standard Deviation	0.41
Total Responses	93

15. Was Turnitin a useful tool to help you properly cite the literature in written reports?

#	Answer	Bar	Response	%
1	Yes		14	52%
2	No		13	48%
	Total		27	

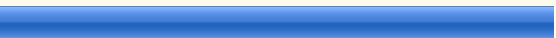

Statistic	Value
Mean	1.48
Variance	0.26
Standard Deviation	0.51
Total Responses	27

16. Have you ever used the course MP3 recordings available through Boilercast?

#	Answer	Bar	Response	%
1	Yes		101	83%
2	No		20	17%
	Total		121	



Statistic	Value
Mean	1.17
Variance	0.14
Standard Deviation	0.37
Total Responses	121

17. Have you ever used the course video recordings?

#	Answer	Bar	Response	%
1	Yes		101	83%
2	No		20	17%
	Total		121	



Statistic	Value
Mean	1.17
Variance	0.14
Standard Deviation	0.37
Total Responses	121

18. Echo 360 Are you familiar with the Echo 360 system that will be replacing Boilercast in the fall of 2009?

#	Answer	Bar	Response	%
1	Yes		3	2%
2	No		118	98%
	Total		121	



Statistic	Value
Mean	1.98
Variance	0.02
Standard Deviation	0.16
Total Responses	121

# 19. Do you think Echo 360 will be useful for your learning activities?

#	Answer	Bar	Response	%
1	Yes		109	90%
2	No		12	10%
	Total		121	



Statistic	Value
Mean	1.10
Variance	0.09
Standard Deviation	0.30
Total Responses	121

20. ScreencorderAre you familiar with the Screencorder software available through ITaP?

#	Answer	Bar	Response	%
1	Yes		4	3%
2	No		117	97%
	Total		121	


Statistic	Value
Mean	1.97
Variance	0.03
Standard Deviation	0.18
Total Responses	121

**21.** Ideal for distance learning, training, and support videos and demonstrations, ScreenCorder captures and records all desktop activity in minutes. ScreenCorder allows users to enhance video recordings with step-by-step audio instructions and graphic speech bubbles. Easily correct audio and video or add new material to existing recordings and export recordings to multiple video formats, including Flash using ScreenCorder. Go to <http://www.itap.purdue.edu/tlt/screencorder> to learn more about ScreenCorder. Do you think the Screencorder Software would be useful for your learning activities?

#	Answer	Bar	Response	%
1	Yes		82	70%
2	No		35	30%
	Total		117	

Statistic	Value
Mean	1.30
Variance	0.21
Standard Deviation	0.46
Total Responses	117

22. Have you ever taken a class in which the Screencorder software was used?

#	Answer	Bar	Response	%
1	Yes		2	100%
2	No		0	0%
	Total		2	


Statistic	Value
Mean	1.00
Variance	0.00
Standard Deviation	0.00
Total Responses	2

23. Do you think the Screencorder Software would be useful for your learning activities?

#	Answer	Bar	Response	%
1	Yes		0	0%
2	No		0	0%
	Total		0	

Statistic	Value
Mean	0.00
Variance	0.00
Standard Deviation	0.00
Total Responses	0

24. Do you think the Screncorder Software was useful for your learning activities?

#	Answer	Bar	Response	%
1	Yes		2	100%
2	No		0	0%
	Total		2	

Statistic	Value
Mean	1.00
Variance	0.00
Standard Deviation	0.00
Total Responses	2

25. EInstruction (clickers) Are you familiar with the use of clickers in the classroom?

#	Answer	Bar	Response	%
1	Yes		85	70%
2	No		36	30%
	Total		121	

Statistic	Value
Mean	1.30
Variance	0.21
Standard Deviation	0.46
Total Responses	121

**26.** The eInstruction Classroom Performance System is a versatile remote system that involves the use of student-held clickers and allows quizzing, polling, and attendance taking instantaneously in the classroom. The eInstruction system promotes interactivity among students and provides instant feedback to instructors and students. For more information on eInstruction, go to <http://www.itap.purdue.edu/tlt/einstruction/> Do you think clickers would be beneficial to your learning?

#	Answer	Bar	Response	%
1	Yes		21	58%
2	No		15	42%
	Total		36	

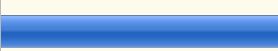

Statistic	Value
Mean	1.42
Variance	0.25
Standard Deviation	0.50
Total Responses	36

27. Have you ever taken a class in which clickers were used?

#	Answer	Bar	Response	%
1	Yes		61	72%
2	No		24	28%
	Total		85	

Statistic	Value
Mean	1.28
Variance	0.21
Standard Deviation	0.45
Total Responses	85

28. Do you think clickers would improve your ability to learn a course's material?

#	Answer	Bar	Response	%
1	Yes		10	42%
2	No		14	58%
	Total		24	

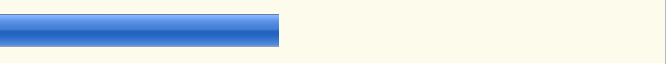

Statistic	Value
Mean	1.58
Variance	0.25
Standard Deviation	0.50
Total Responses	24

29. Do you think clickers were responsible for your learning the course material more effectively?

#	Answer	Bar	Response	%
1	Yes		14	23%
2	No		47	77%
	Total		61	

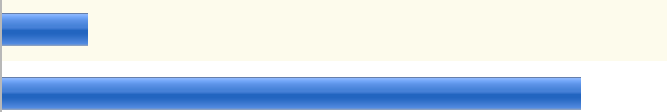
Statistic	Value
Mean	1.77
Variance	0.18
Standard Deviation	0.42
Total Responses	61

30. Envision Center Are you familiar with the Envision center which is located between Stewart Center and the Purdue Memorial Union?

#	Answer	Bar	Response	%
1	Yes		51	42%
2	No		70	58%
	Total		121	

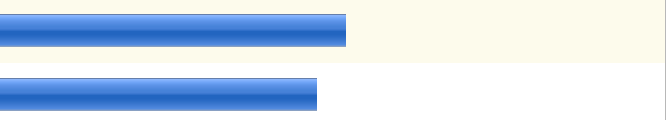
Statistic	Value
Mean	1.58
Variance	0.25
Standard Deviation	0.50
Total Responses	121

**31.** The Envision Center was created to serve, support and collaborate with faculty, students and industry to explore novel computer graphics, advanced visualization and human computer interface technologies, including auditory and haptic technology. These technologies are integrated with advanced computing and networking to create high-end immersive visualization environments which can be used to communicate complex research results to students, researchers and the general public. Have you seen or experienced an educational model created in a virtual reality environment?

#	Answer	Bar	Response	%
1	Yes		9	13%
2	No		61	87%
	Total		70	

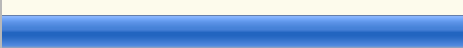

Statistic	Value
Mean	1.87
Variance	0.11
Standard Deviation	0.34
Total Responses	70

32. Have you seen or experienced an educational model created in a virtual reality environment?

#	Answer	Bar	Response	%
1	Yes		25	52%
2	No		23	48%
	Total		48	

Statistic	Value
Mean	1.48
Variance	0.25
Standard Deviation	0.50
Total Responses	48

**33.** There are several examples of the use of virtual reality environments that have been created by the Envision Center which can be seen at [http://www.envision.purdue.edu/projects\\_details.html](http://www.envision.purdue.edu/projects_details.html) Do you believe that any of the material that has been covered / will be covered in your pharmacy courses would lend itself to hands-on or immersive environments?

#	Answer	Bar	Response	%
1	Yes		84	69%
2	No		37	31%
	Total		121	

Statistic	Value
Mean	1.31
Variance	0.21
Standard Deviation	0.46
Total Responses	121

**34.** Virtual reality environments generally take place in a large, multi-screen immersive environment. Would you be willing to cross campus to experience a lab in Purdue's existing Envision center?

#	Answer	Bar	Response	%
1	Yes		93	77%
2	No		28	23%
	Total		121	

Statistic	Value
Mean	1.23
Variance	0.18
Standard Deviation	0.42
Total Responses	121

**35.** Current technology allows for portable immersive environments that can be set up outside of the Envision center. Would you be in favor of having these types of immersive environments set up in your classrooms/labs?

#	Answer	Bar	Response	%
1	Yes		98	81%
2	No		23	19%
	Total		121	

Statistic	Value
Mean	1.19
Variance	0.16
Standard Deviation	0.39
Total Responses	121

36. Please feel free to provide additional comments or suggestions relevant to instructional technology in the School of Pharmacy and Pharmaceutical Sciences.

**Text Response**

N/A

PPT is fine. Technology stuff just screws up everything.

I think any of the technologies listed would provide a more interactive learning experience and be beneficial to the curriculum.

PLEASE, can the video lectures not cut off the bottom corner of the computer window with the professor live window? I take screen clippings from there with OneNote in classes that the notes are not handed out in and it would be nice to SEE that corner. Also, can the professor window was zoomed in more and maybe UP a little higher so we see less of students' heads and more of the screen (esp. helpful when a class is taught via overhead and not powerpoint). Can you make a button/option to download MULTIPLE mp4s to your ipod from HookTV? That would be AMAZING and save a bunch of time!

No comments.

I highly encourage the use of these new technologies for our school. I believe they are a strong learning aid and supplement that can advance our development and success as students.

Dr. Rochet is the man to head these technology initiatives. He seems like a man that

Statistic	Value
Total Responses	27