INSTITUTIONAL RESEARCH REPORT

ECAR UNDERGRADUATE STUDENT TECHNOLOGY SURVEY

September 2013

THE UNIVERSITY OF SCRANTON
INSTITUTIONAL RESEARCH OFFICE

The University of Scranton administered the ECAR Student Technology Survey in spring 2013. This survey instrument from the Educause suite of surveys provides participant institutions with an overall set of questions related to student computing and technology use. The instrument was available to the University free of charge. The survey was accessible online via a Web link emailed to all undergraduate students; the survey opened for responses on March 14 and closed on April 12. A total of 3889 students received the survey. Of this number, 619 submitted the survey, an overall response rate of 15.9%. Key survey areas focus on student demographics, technology tools and use, how instructors use technology in the classroom, and how students use technology in the classroom. This report summarizes data in each of these areas for the University of Scranton. For comparison purposes this report will use the average of two different groups of institutions. The first group includes all of the institutions classified as private and Master's level, and the second group includes all of the institutions that participated in the United States.

Key University of Scranton Findings:

- 95% of students reported owning laptops up from 89% in 2010. 84% of students reported having a smartphone.
- Approximately half of the students reported handheld mobile device support as good or excellent for library resources, checking grades, and finding event/club information.
- Only 40% of students rated handheld mobile device support for the learning management system (LMS) as good or excellent while 25% rated it as poor or fair.
- Nearly 2/3 (65%) of the students reported that technology helped them feel more connected to the institution.
- Just over half (54%) of the students believed that most or all of their professors use information technology effectively in their courses.
- 63% of students would like their professors to use more lecture capture; 53% would like their professors to use the LMS more.
- Over half (59%) of the students reported that either none of their professors or only some of their professors provided adequate training for the particular form of information technology that they use in their course.
- About 2/3 of the students (61%) would prefer courses with some online components.
- 86% of students felt like they were typically discouraged or banned from using a smartphone in class, but half of all students felt like smartphones could be used effectively to look up information or to photograph information in lecture if allowed.

University of Scranton Student Demographics

A total of 619 University of Scranton students, 393 females and 207 males, responded to the ECAR Student Technology Survey. Of this response group, 26% were freshman, 29.5% sophomores, 23% juniors, and 18% seniors[1]. The majority of respondents were female (64%), between the ages of 18 and 24 (95.3%), and attending college full time (95%); these statistics closely mirror other the four year colleges included in this survey. Two-thirds of the surveyed Scranton students (67%) lived on campus, and the remaining 33% of students lived in off campus housing.

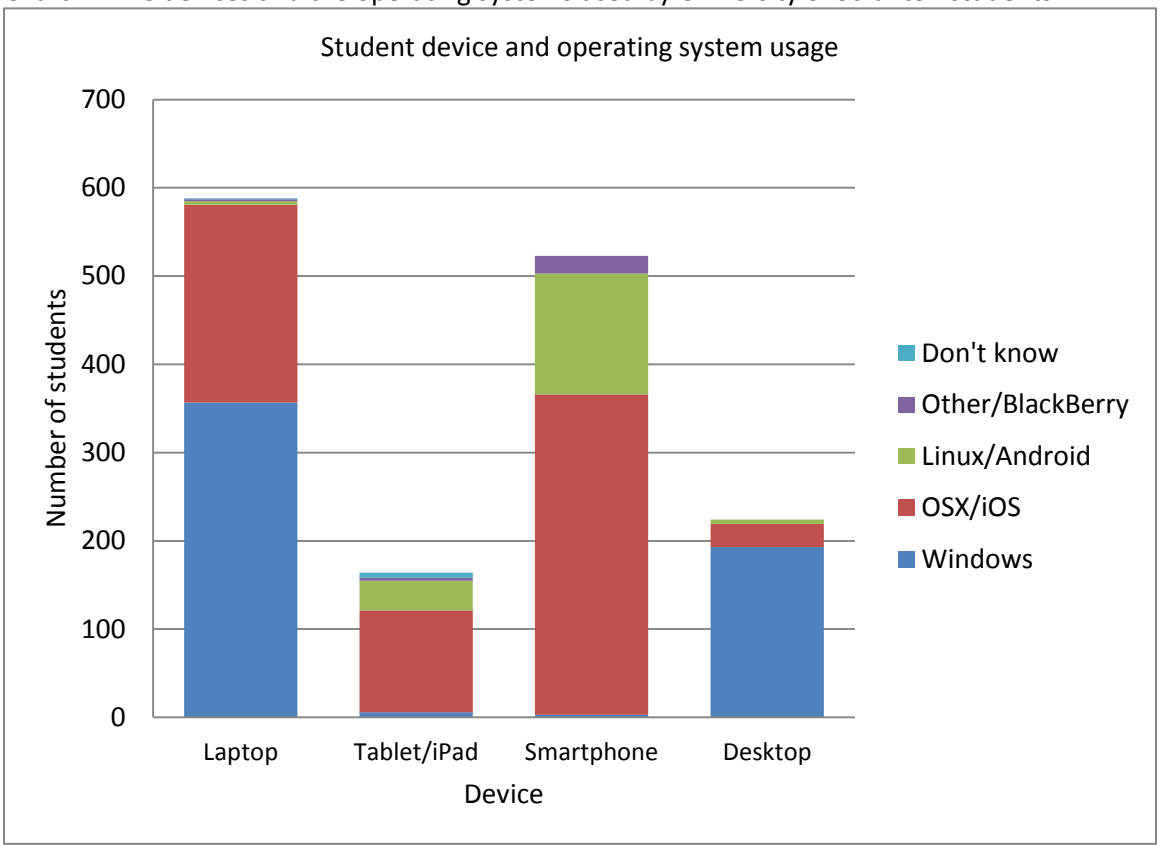
[1] 3.5% selected "other type of undergraduate student." Graduate students are not included in the ECAR.

Technology Tools and Use

The primary purpose of the ECAR technology survey is to understand the role of technology in the personal and academic lives of students. The survey poses questions regarding student computer ownership and the use of a variety of other technology tools. Only about a third (36%) of Scranton respondents report that they own a desktop computer. On the contrary, the vast majority of Scranton respondents (95.2%) report owning a personal laptop computer. Most students (84.5%) also owned a smartphone. In addition to these forms of technology, smaller percentages of students reported owning a tablet/iPad (26.5%) or an e-book reader (20.4%). Only one percent of students reported not owning an internet-capable device, and another 7 percent reported only one device. Most of the students reported owning two (38%) or three (30%) internet-capable devices. The remaining students reported owning four (16%), five (4%), or more than five (5%) internet capable devices. Additionally, only about two-thirds (66%) of the students reported owning their own printer.

Over half (61%) of students reported that their laptop used a Windows operating system while the remainder mostly used OSX (38%) and a few used Linux (1%). Among the students that reported owning a desktop, 86 percent reported using Windows, 12 percent OSX, and 2 percent Linux. On mobile devices, the iOS is the most popular operating system with 70 percent of tablet users and 69 percent of smartphone users, while the Android operating system was used by 20 percent of tablet users and 26 percent of smartphone users. The Windows operating system was utilized by only 4 percent of tablet users and less than 1 percent of smartphone users.

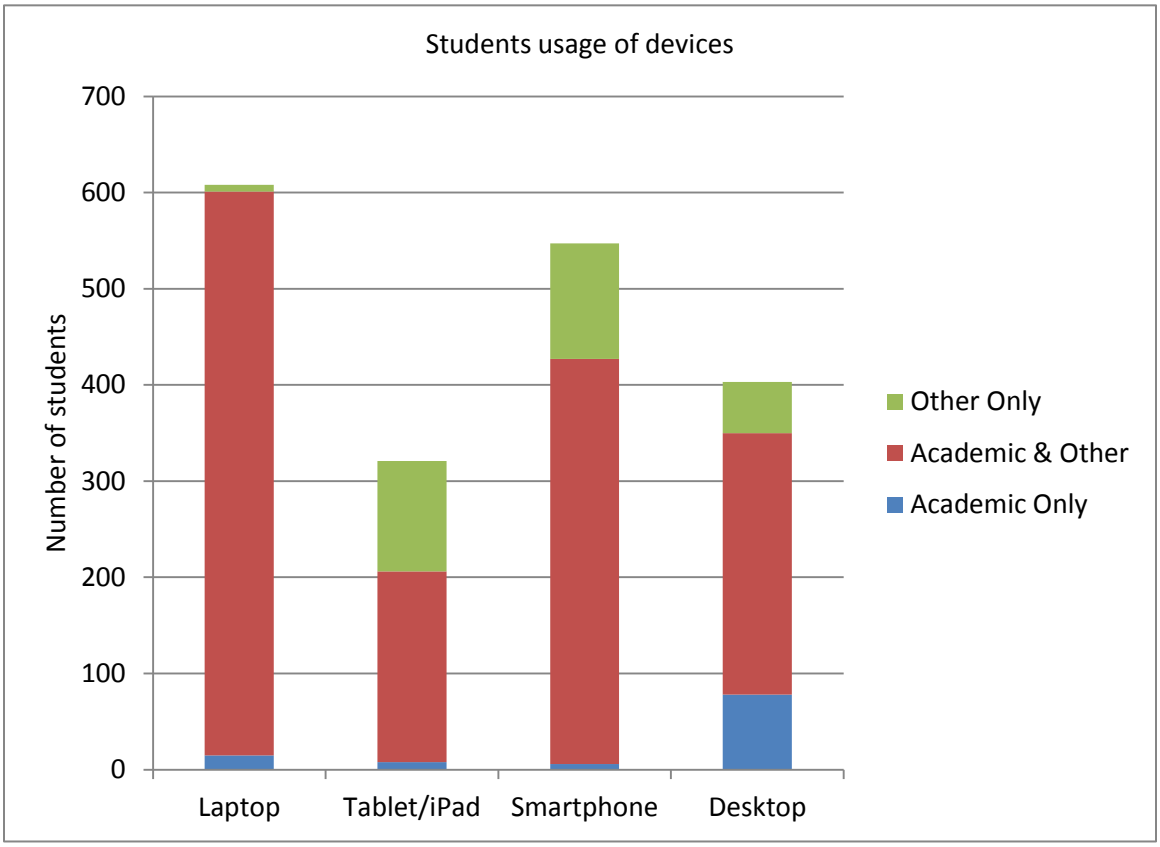
Chart 1. The devices and the operating systems used by University of Scranton students.



Students were also asked how they use the devices available to them. Nearly all of the students used laptops for both academic and other purposes (95%) with a few students reporting that they only used them for academic purposes (2%), had not used them in the past year (2%), or used them for other purposes only (1%). About one third of the students (34%) reported that they had not used desktops in the past year, while a bit less than half of the students (45%) said they used them for academic and other purposes. The remaining students either used desktops for academic purposes only (13%) or used them for other purposes only (9%).

Most students also reported using smartphones for academic and other purposes (69%). Twenty percent of the students reported that they only used smarthpones for other purposes, while 10 percent reported not having used smartphones in the past year, and only 1 percent reported using smartphones for academic purposes only. Nearly half the students (46%) responded that they had not used a tablet or iPad in the past year. One third of the students (33%) reported using them for academic and other purposes, and like with smartphones, 20 percent reported using them for other purposes only and 1 percent reported using them for academic purposes only.

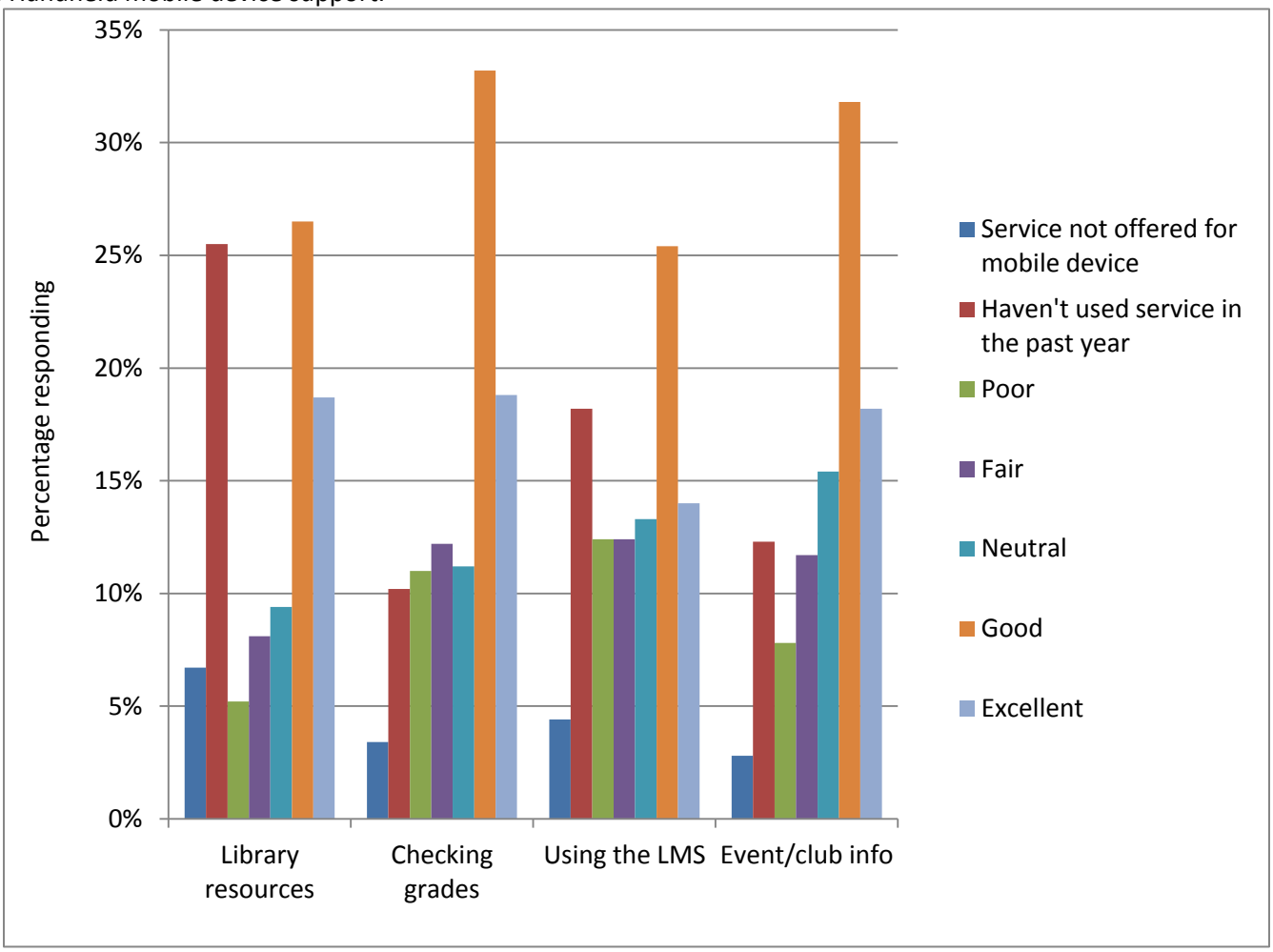
Chart 2. How students utilize their devices.



The ECAR study also assesses the use of handheld mobile devices for academic purposes and how well students think that the University accommodates those uses. The University of Scranton only supported four of the areas asked about on the ECAR survey: library resources, checking grades, using the learning management software (LMS), and finding event or club

information. Of the students at the University that reported using an offered service, over half reported that support was good or excellent for each of the services. When compared to the comparison groups, the University scored about the same—slightly higher on library resources (67% at the University, 62% at master's level private institutions, and 64% at all US institutions), slightly lower on checking grades (60%, 63%, and 66%), slightly lower on using the LMS (51%, 57%, and 59%), and slightly higher on finding event or club information (59%, 56%, and 58%).

Chart 3. Handheld mobile device support.



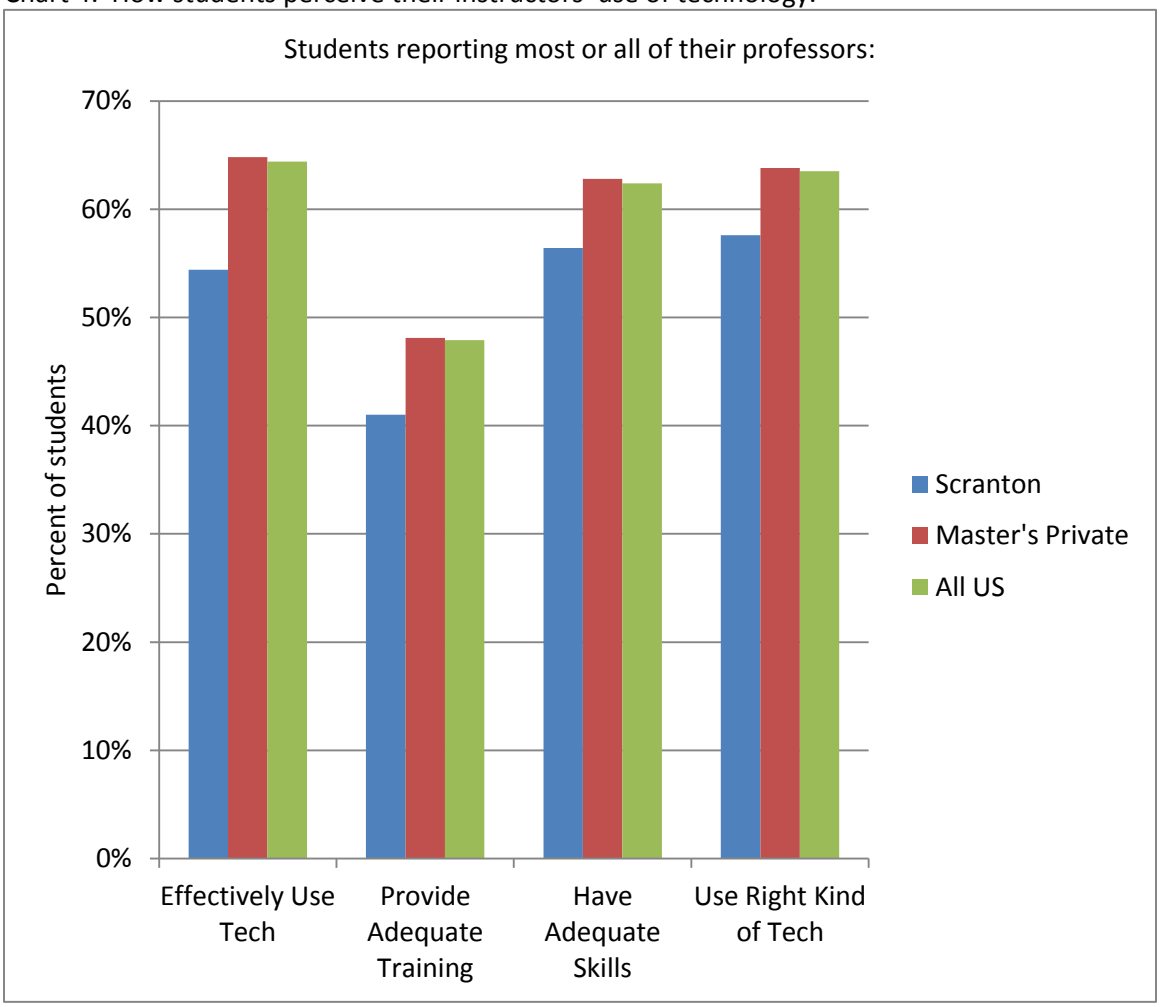
Technology Use, Connection, and Social Networking

Students were asked four questions that related to their interaction with the campus and the campus community. Just under two-thirds of students agreed (48%) or strongly agreed (17%) that technology helped *them feel connected to the institution*. Most of the students also agreed (38%) or strongly agreed (20%) that technology made it more likely they would get involved in a campus activity. A little under two-thirds of students agreed (44%) or strongly agreed (17%) that technology helped them *feel connected to other students* and *connected to professors* (agreed, 45% and strongly agreed 15%). However, nearly two-thirds of the students also agreed (31%) or strongly agreed (29%) that they would prefer *to keep* their *academic life and social life separate* when using social networking services.

Instructor Technology Use in the Classroom

At Scranton, approximately 54% of respondents believe that most or all of their professors *use information technology effectively in their courses* (see **Charts 4 & 5**) and about 56% believe that most or all of their professors *have the IT skills required to carry out the course instruction*. Nearly the same amount of students (58%) report that most or all their professors *use the right kind(s) of technology*. These results are lower than average for our comparison institutions which reported 65%, 63%, and 64%, and the average of all US institutions which reported 64%, 62%, and 64%.

Chart 4. How students perceive their instructors' use of technology.



Looking at the different resources or tools that the professors could use (see **Table 1**), nearly two-thirds of the students would like their instructors to use more lecture capture. Just over half of the students would like their instructors to use the learning management system more. About one quarter of the students would like more e-books while another quarter would like fewer e-books. Nearly a fifth (19%) of the students would like their instructors to use fewer e-portfolios in comparison to 10% that would like an increase in e-portfolios.

Chart 5. How many instructors effectively use technology?

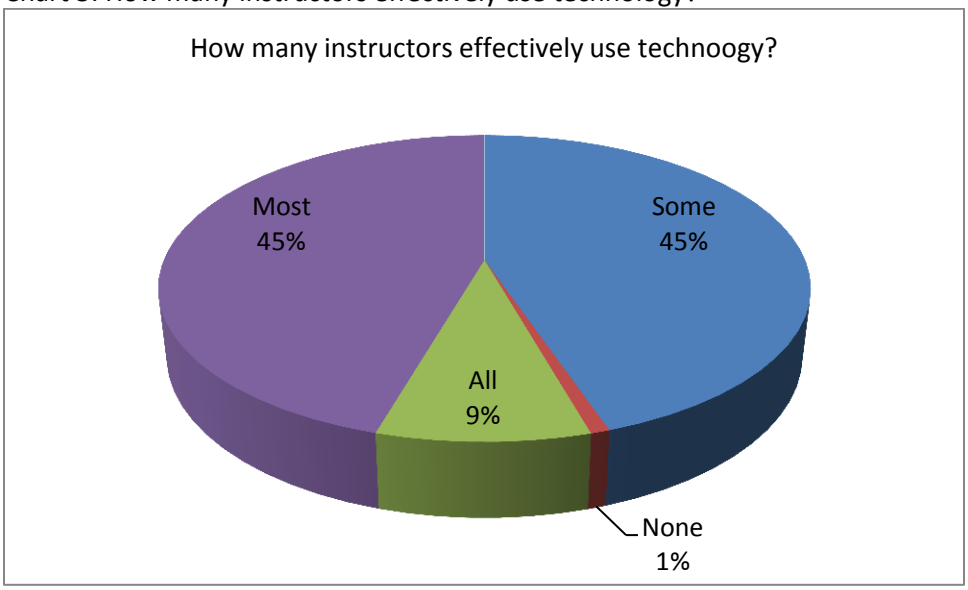


Table 1. Technologies students wish their instructors would use more or less.

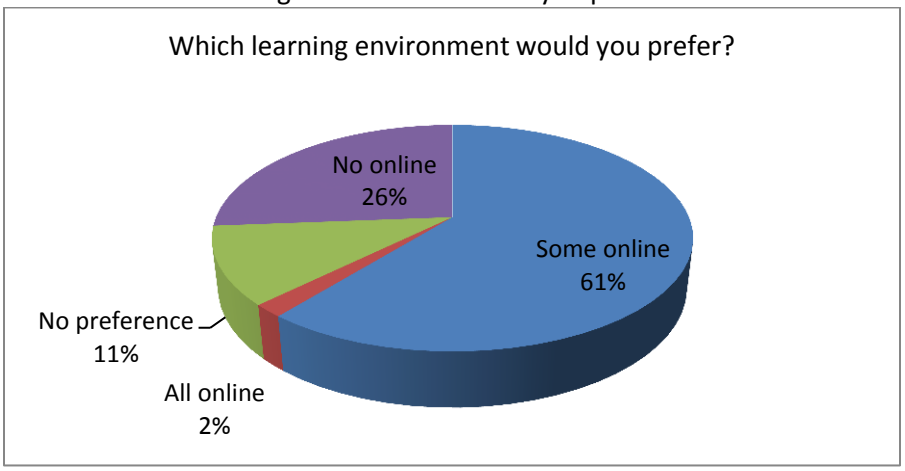
Which do you wish your Instructors would use:	More	Neutral	Less
Lecture capture	62.70%	15.80%	8.20%
CMS/LMS	53.20%	16.50%	11.20%
Online collaboration tools	45.60%	20.40%	12.10%
Simulations or educational games	33.10%	19.50%	17.70%
Open educational resources	31.20%	17.50%	14.40%
E-books or e-textbooks	25.60%	15.50%	24.00%
E-portfolios	10.40%	11.60%	18.90%

Over half of the students reported that either none of their professors (13.4%) or only some of their professors (45.6%) *provide students with adequate training for the particular form of information technology that the instructor uses in his or her course*. This is slightly higher than the average for institutions in our comparison group (none, 11% and some 41%) and the average for all of the institutions that took part in the ECAR (none, 12% and some, 40%). Over one third of the students responded that it was either very important (23%) or extremely important (15%) *that they are better trained or skilled at using available technologies to learn, study, or complete coursework*. Just under half said that it was moderately important (48%) while 15% said it was not very important or not at all important. At the same time, when asked if they were *adequately prepared to use the technology needed in courses* when they entered college, almost two-thirds of the students agreed (47%) or strongly agreed (17%). This was about the same as the average for our comparison institutions where 44% of students agreed and 20% of students strongly agreed and the average of all institutions where 42% agreed and 20% strongly agreed.

When asked which *learning environment* they would *prefer*, most (61%) students responded courses with some online components. About a quarter of the students (26%) would prefer courses with no online components, and only 3% would prefer courses completely online.

Students responded similarly when asked in which *learning environment* they would *learn the most* with 61% some online, 26% no online, and 2% completely online. When asked to what extent they agreed with the statement, "*Technology helps me achieve my academic outcomes*," two-thirds of the students said they either agreed (47%) or strongly agreed (19%). However, only a little under half of the students report agreeing (35%) or strongly agreeing (6%) with the statement, "*I get more actively involved in courses that use technology.*"

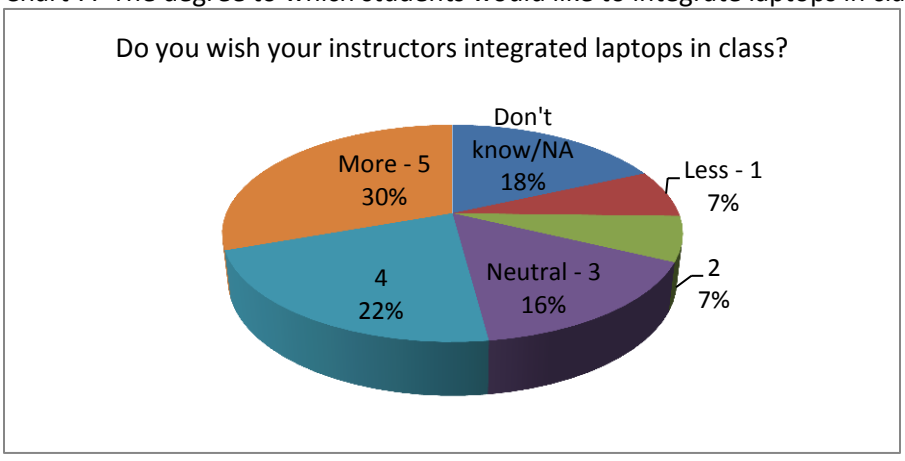
Chart 6. Which learning environment would you prefer?



Student Technology Use in the Classroom

Looking at how students use their own devices in the classroom, half of the students reported that they were banned from using their smartphone in class. Another third (36%) of the students reported that they were discouraged from using a smartphone for a total of 86% of students. The students thought tablets and laptops were much more acceptable with only 12% reporting that tablets were banned and 6% reporting that laptops were banned. Just over half (52.1%) of the students reported that they wanted their instructors to increase the integrated use of their laptop during class, while a little under a third of the students wanted their instructors to increase the integrated use of tablets (30%) and smartphones (30%). When asked if they skipped classes when lecture materials were online, only about an eighth of the students agreed (11%) or strongly agreed (2%) that they did.

Chart 7. The degree to which students would like to integrate laptops in class from 1-5.



When asked about the ways in which they might use *a smartphone as an effective learning tool during classes*, students were most likely to choose "to look up information" or "to photograph information" (for a full list, see **Table 2**, below). Students also reported that inadequate battery life was the primary issue that kept them from using *a smartphone as an academic tool* along with device usability issues, slow network connection, and the cost of the data service (see **Table 3**).

Table 2. Effective uses of a smartphone in class.

Effective use:	Students selecting
To look up information	55.50%
To photograph information	48.90%
To record my instructors	39.10%
To access digital resources	36.00%
N/A -- not effective	23.50%
To participate in activities	23.30%
Other	2.30%

Table 3. Reasons students avoid using a smartphone as an academic tool.

Reason:	Students Selecting
Inadequate battery life	35.40%
Device usability issues	29.90%
Slow network connection	28.40%
Cost of the data service	27.30%
Limited access to the network	21.30%
Lack of useful applications	20.60%
Cost of the device	18.90%
N/A -- not effective	17.70%
Cost of useful applications	14.80%
Other	11.70%
Security/privacy concern	7.90%
Health concern	3.30%

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