



FOOTHILL COLLEGE

Institutional Research and Planning

DATE: September 9, 2013

TO: Andrew LaManque, Executive Director, Institutional Research & Planning

FROM: Thomas Margesson, Student Assistant
Elaine Kuo, College Researcher

RE: ECAR 2013 Survey Results

Overview

The Educause Center for Applied Research's (ECAR) annual study of undergraduate students and information technology surveys students' about their experiences with technology and their relationship with digital technology in the classroom. The 2013 survey was administered during the winter quarter in February 2013. Email invitations were sent to a sample of students who were aged 18 or older at De Anza College and Foothill College. Of the 7,423 De Anza students invited to participate in the survey, 394 completed the survey for a response rate of 5%. The response rate was similar at Foothill where 237 students out of 4,704 completed the survey.

Highlights:

- Laptops and smartphones are the most widely owned devices among students at both De Anza and Foothill. Over 80% of respondents own a laptop and over 75% own a smartphone. Additionally, approximately two-thirds of respondents (66% at De Anza and 70% at Foothill) own both a laptop and a smartphone.
- Nearly all respondents have at least one internet capable device (97% at De Anza and 99% at Foothill). Over half of the respondents have multiple internet capable devices with 55% of participants at De Anza and 61% at Foothill owning three or more such devices.
- The vast majority of respondents feel laptops are the most important devices for academic success (91% at De Anza and 90% at Foothill). Respondents cited the second most important device, smartphones, at a lower percentage rate compared to laptops (61% at De Anza and 57% at Foothill).
- More than half of the respondents from De Anza (55%) and Foothill (60%) cite courses with some online components as the learning environment where they learn the most, while less than 10% feel they learned the most with online only courses.
- The majority of participants have not participated in a Massive Open Online Course (MOOC) in the past year (97% at De Anza and 90% at Foothill), with three-fourths of participants at De Anza and nearly two-thirds at Foothill unable to define a MOOC.

Methodology

Source

2013 ECAR Study of Undergraduate Students and Information Technology Survey

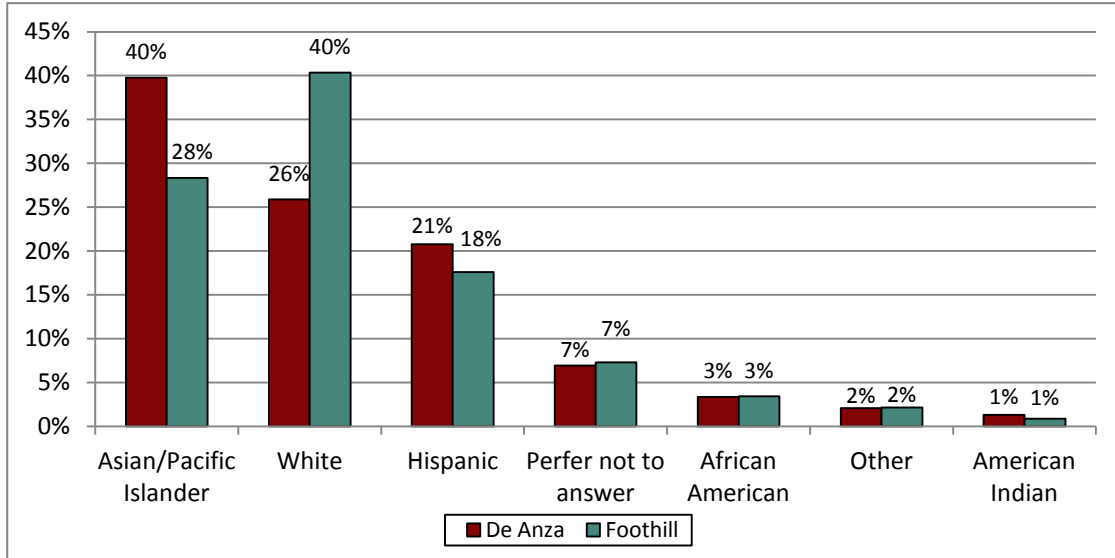
Demographics

Age

| Age | De Anza College | | Foothill College | |
|-------|-----------------|------|------------------|------|
| | N | % | N | % |
| 18-24 | 255 | 65% | 121 | 51% |
| 25+ | 139 | 35% | 116 | 49% |
| Total | 394 | 100% | 237 | 100% |

- In general, survey participants reflect the student populations by age at each college, although at Foothill, students 25 and older, who represent almost half of the respondents, composed only 42% of the Winter 2013 enrollment.

Ethnicity

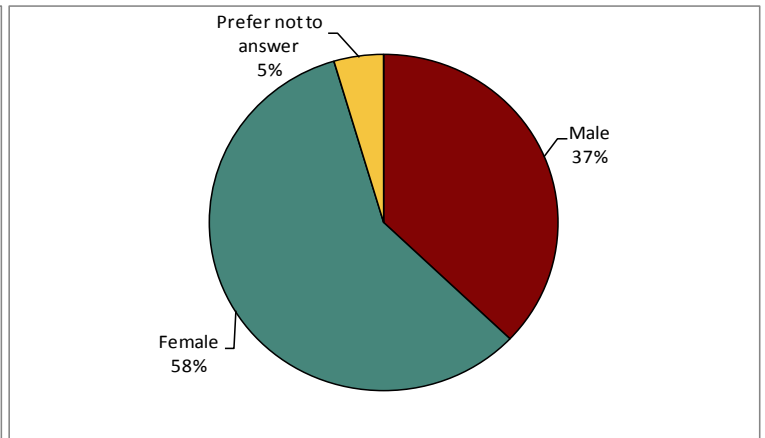
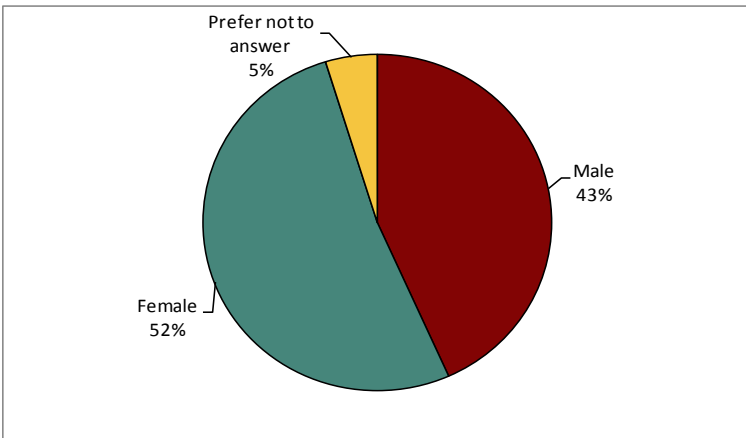


- The percentages of Asian/Pacific Islander and White participants at De Anza and Foothill differ slightly from the actual populations at each college. In Winter 2013, Asian/Pacific Islanders represented 45% at De Anza and 32% at Foothill, while Whites represented 23% at De Anza and 36% at Foothill.

Gender

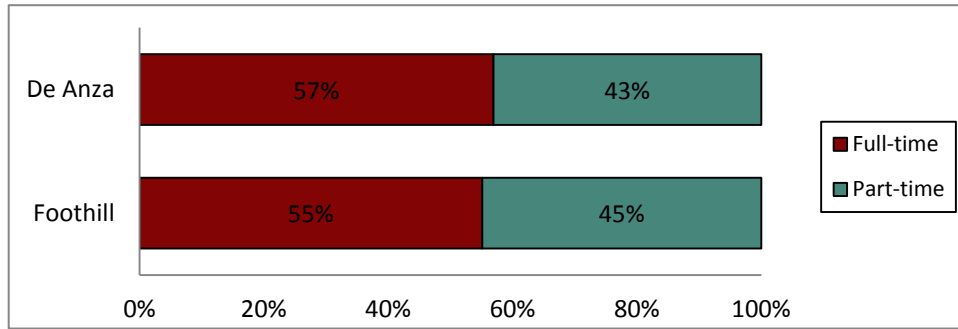
De Anza

Foothill



-There are slightly more females, about four-percentage point higher, when comparing the survey respondents to the Winter 2013 student population.

Enrollment

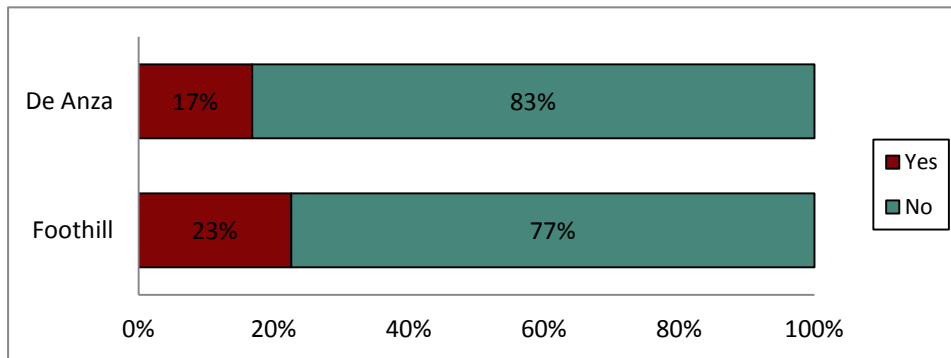


- The percentage of full-time respondents (57% at De Anza and 55% at Foothill) is greater than the percentage of full-time students for the overall population at both De Anza and Foothill in Winter 2013 (45% at De Anza and 37% at Foothill).

Class standing during the current academic year

| Class Standing | De Anza College | | Foothill College | |
|-------------------------------------|-----------------|------|------------------|------|
| | N | % | N | % |
| Freshman or first-year student | 104 | 26% | 52 | 22% |
| Sophomore or second-year student | 139 | 35% | 80 | 34% |
| Junior or third-year student | 54 | 14% | 35 | 15% |
| Senior or fourth-year student | 30 | 8% | 10 | 4% |
| Other type of undergraduate student | 67 | 17% | 60 | 25% |
| Total | 394 | 100% | 237 | 100% |

Percentage of students taking classes at multiple institutions



- The percentage of respondents taking classes at multiple institutions is slightly higher at Foothill compared to De Anza (23% vs. 17%)

Academic Goal

| | De Anza College | | Foothill College | |
|---|-----------------|------|------------------|------|
| | N | % | N | % |
| A bachelor's degree (or equivalent) | 128 | 33% | 68 | 29% |
| A master's degree (or equivalent) | 106 | 27% | 62 | 26% |
| An associate's degree (or equivalent) | 70 | 18% | 37 | 16% |
| Another professional degree (MD, DDS, JD, Ed.D, etc.) | 23 | 6% | 21 | 9% |
| A doctoral degree (or equivalent) | 22 | 6% | 26 | 11% |
| A vocational/occupational certificate | 17 | 4% | 17 | 7% |
| Digital badges or patches that certify my skills | 13 | 3% | 3 | 1% |
| Other | 8 | 2% | 3 | 1% |
| Total | 387 | 100% | 237 | 100% |

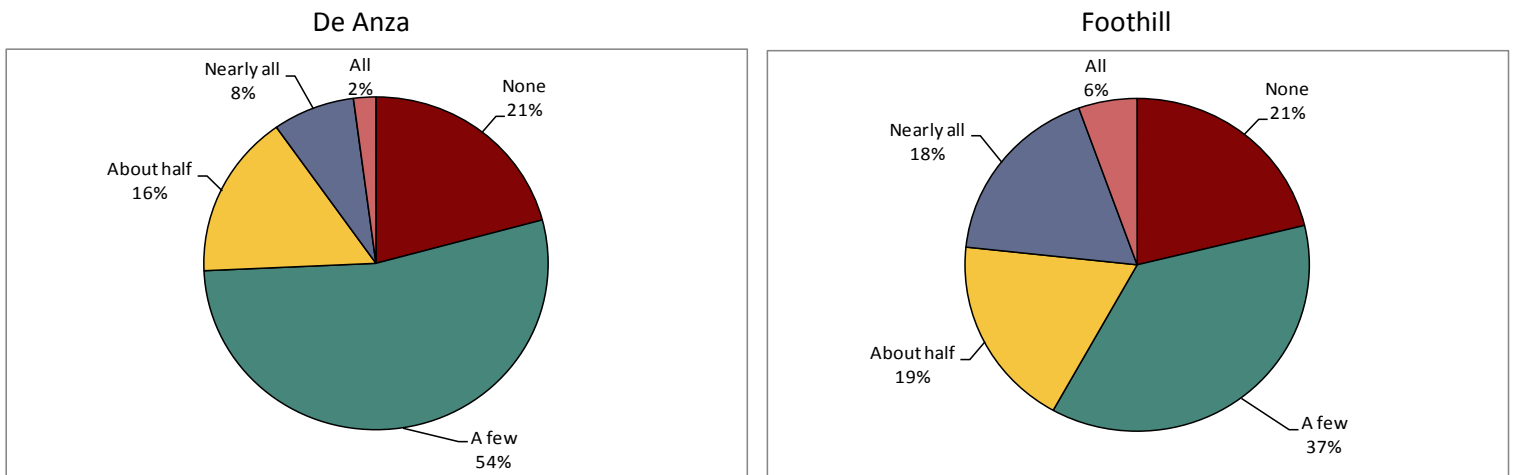
Current or intended major

| | De Anza College | | Foothill College | |
|---|-----------------|------|------------------|------|
| | N | % | N | % |
| Business, management, marketing | 62 | 16% | 23 | 10% |
| Health sciences, including professional programs | 49 | 13% | 47 | 20% |
| Biological/life sciences | 36 | 9% | 29 | 12% |
| Computer and information sciences | 35 | 9% | 17 | 7% |
| Engineering and architecture | 29 | 8% | 15 | 6% |
| Social sciences, including history and psychology | 27 | 7% | 28 | 12% |
| Fine and performing arts | 25 | 6% | 16 | 7% |
| Other (Please describe) | 23 | 6% | 16 | 7% |
| Undecided | 23 | 6% | 10 | 4% |
| Liberal arts/general studies | 23 | 6% | 3 | 1% |
| Communications/journalism | 13 | 3% | 1 | 0% |
| Physical sciences, including mathematical sciences | 10 | 3% | 9 | 4% |
| Public administration, legal, social, and protective services | 10 | 3% | 2 | 1% |
| Education, including physical education | 8 | 2% | 7 | 3% |
| Manufacturing, construction, repair or transportation | 6 | 2% | 1 | 0% |
| Humanities | 5 | 1% | 5 | 2% |
| Agriculture and natural resources | 1 | 0% | 6 | 3% |
| Total | 385 | 100% | 235 | 100% |

- Other majors listed by respondents include: Media/Graphic Design, Green Industry, Electrical, and double majors.

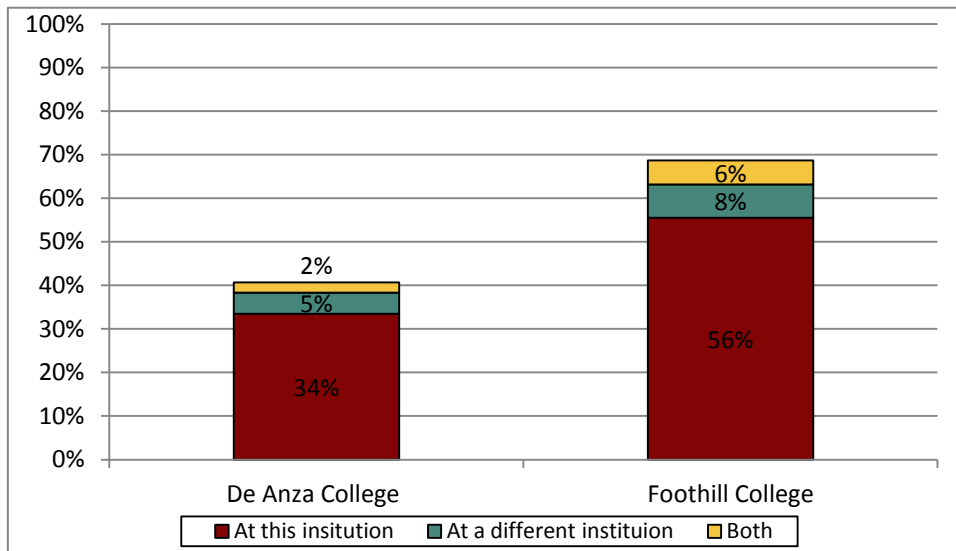
Student Course History

Percentage of hybrid in class/online courses

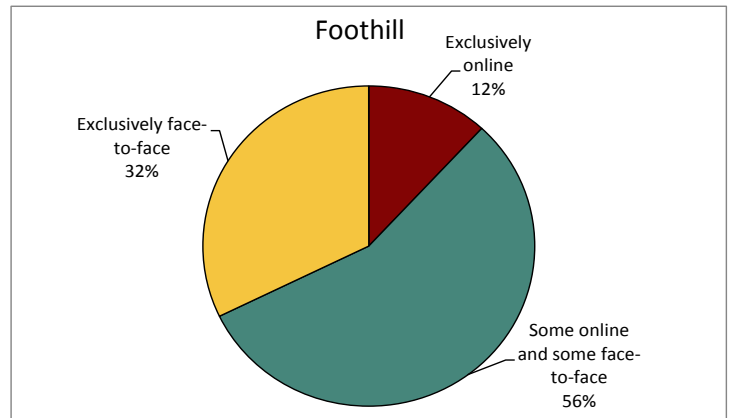
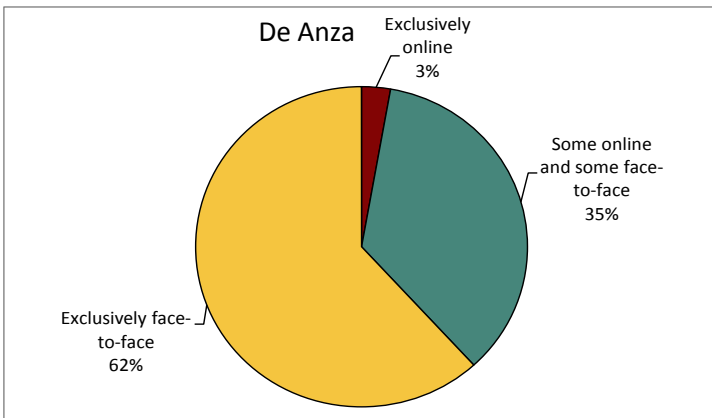


- Foothill survey respondents were more likely to enroll in more hybrid or online courses within the past year, with 43% indicating that about half or more of their classes were hybrid or online courses. In comparison, only 26% of the De Anza respondents demonstrate the same level of enrollment in these courses.

Participation in completely online classes in the past year

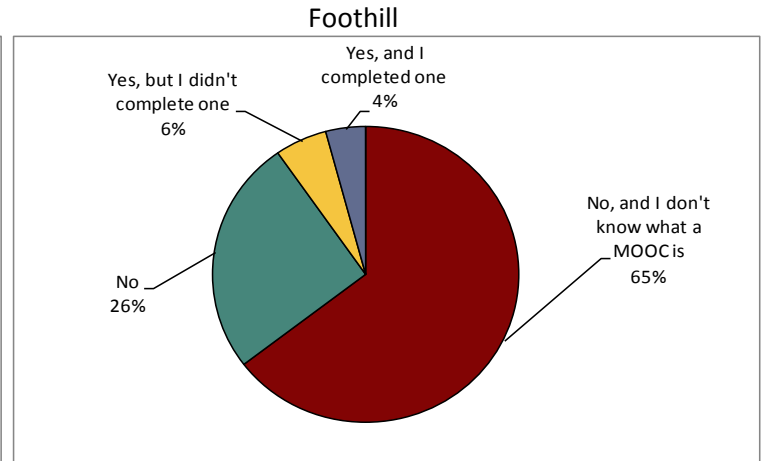
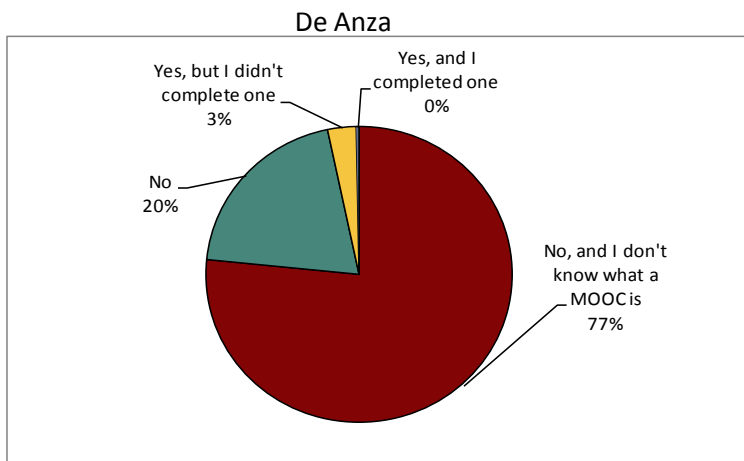


- Over half of Foothill respondents enrolled in a fully online course at Foothill (62%), while 8% enrolled in an online course at another institution. In comparison, about one-third of De Anza respondents enrolled in an online course at De Anza (36%) and 5% enrolled in an online course at another institution.



- Respondents at Foothill are more likely to enroll in a course with an online component, with 68% indicating they have enrolled in either exclusively online or hybrid courses, compared to only 38% of De Anza respondents.

Participation in Massive Open Online Class (MOOC) in the past year



-The majority of participants have not participated in a MOOC in the past year (97% at De Anza and 90% at Foothill). Three-fourths of participants at De Anza and nearly two-thirds at Foothill do not know the definition for a MOOC.

Use of resources/tools for academic coursework

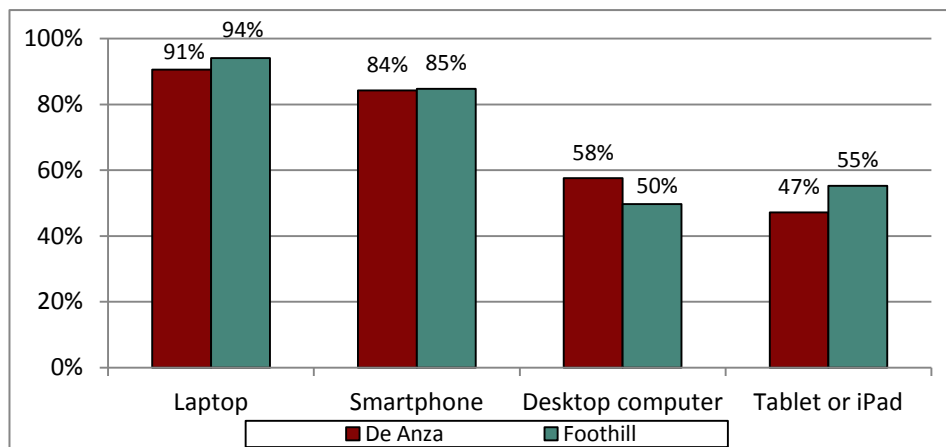
| De Anza | E-portfolios | | E-books | | Simulations or educational games | |
|-------------------------------|--------------|------|---------|------|----------------------------------|------|
| | N | % | N | % | N | % |
| Used in one course | 101 | 61% | 105 | 39% | 160 | 68% |
| Used in a few courses | 43 | 26% | 92 | 34% | 45 | 19% |
| Used in about half my courses | 10 | 6% | 35 | 13% | 20 | 9% |
| Used in most of my courses | 4 | 2% | 26 | 10% | 7 | 3% |
| Used in all my courses | 8 | 5% | 11 | 4% | 3 | 1% |
| Total | 166 | 100% | 269 | 100% | 235 | 100% |

| Foothill | E-portfolios | | E-books | | Simulations or educational games | |
|-------------------------------|--------------|------|---------|------|----------------------------------|------|
| | N | % | N | % | N | % |
| Used in one course | 79 | 70% | 66 | 38% | 85 | 62% |
| Used in a few courses | 15 | 13% | 41 | 24% | 35 | 25% |
| Used in about half my courses | 7 | 6% | 26 | 15% | 11 | 8% |
| Used in most of my courses | 6 | 5% | 27 | 16% | 3 | 2% |
| Used in all my courses | 6 | 5% | 12 | 7% | 4 | 3% |
| Total | 113 | 100% | 172 | 100% | 138 | 100% |

- Survey respondents report that e-portfolios are more likely than e-books and simulations/educational games to be used in one of their courses (61% at De Anza and 70% at Foothill). However, e-books are more likely to be used in multiple courses, with more than one-fourth of De Anza participants (27%) and over one-third of Foothill participants (38%) indicating that they used e-books for about half or more of their courses.

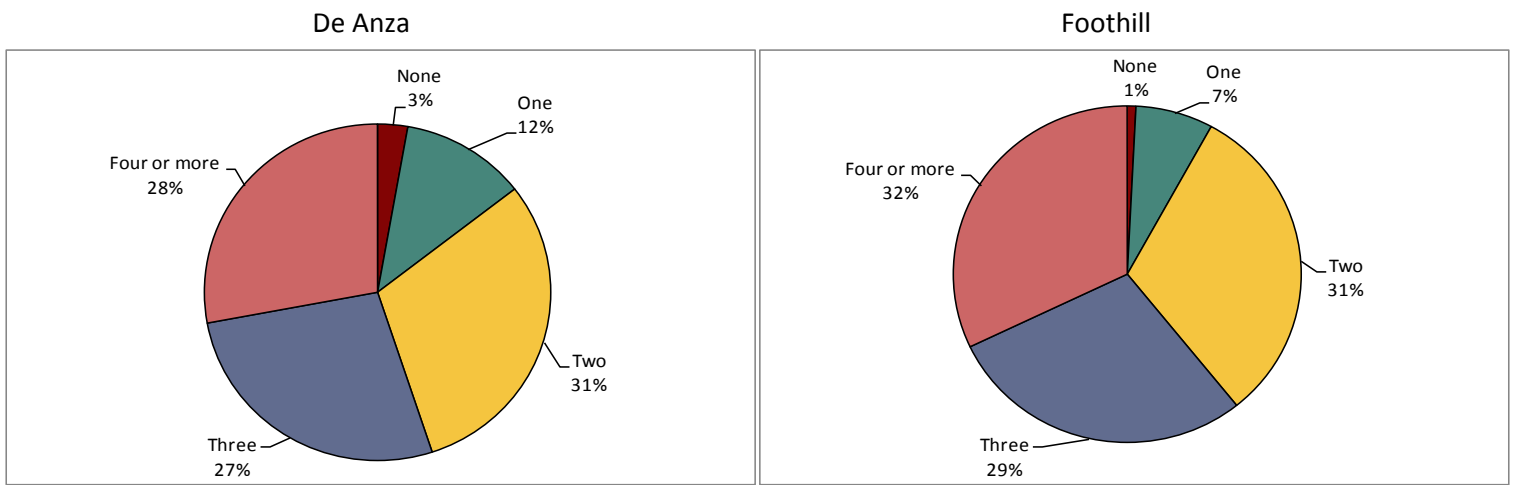
Access to Technology

Students who currently own the device or plan to purchase one within the next 12 months



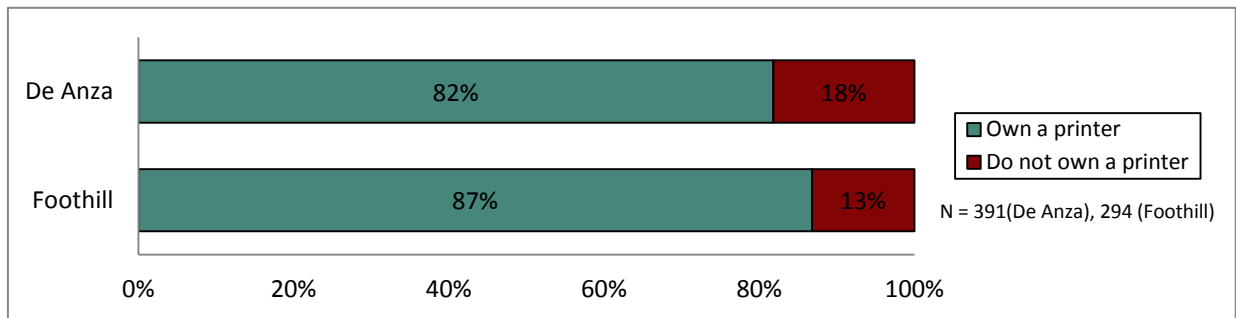
- Laptops and smartphones are used by the vast majority of respondents, with over four-fifths (80%) of participants indicating they either own or plan to purchase these devices. There is little difference among ethnic groups; over four-fifths of all the groups either own or plan to purchase a laptop and/or smartphone.

Number of internet capable devices



-Nearly all respondents report owning least one internet-capable device (97% at De Anza and 99% at Foothill). Over half of the respondents own multiple internet-capable devices, with 55% of participants at De Anza and 61% at Foothill owning three or more devices.

Percentage of Students who own a printer



Use of college provided desktop computers

| Top Five Responses | De Anza College | | Foothill College | |
|---------------------------|-----------------|-----|------------------|-----|
| | N | % | N | % |
| Access printing services | 171 | 44% | 93 | 41% |
| Convenience | 167 | 43% | 94 | 41% |
| Access library resources | 132 | 34% | 68 | 30% |
| Don't use | 114 | 29% | 92 | 40% |
| Access specialty software | 88 | 23% | 54 | 24% |

Note: Students could select multiple responses.

- Even though four-fifths of respondents own a printer, over 40% of respondents indicate they used college-provided computers for printing services. However, more Foothill than De Anza participants report they do not use college-provided computers (40% vs.29%).

- Other uses of college-provided computers include(descending order): better internet, designated workspace, access specialty software, access specialty hardware, and build academic social networks.

Technology in the classroom

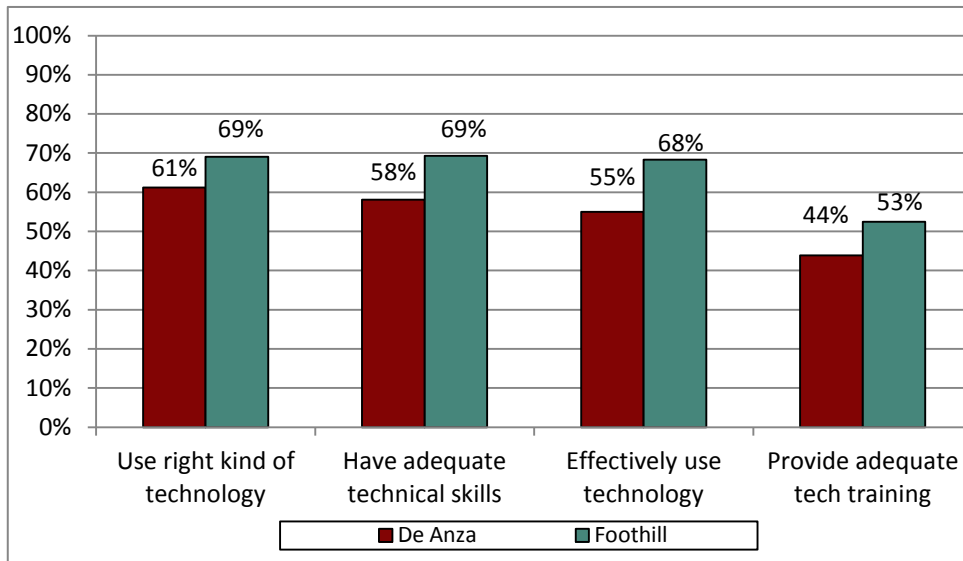
Typical in-class experience with devices

| De Anza | Smartphone | | Tablet or iPad | | Laptop | |
|--|------------|------|----------------|------|--------|------|
| | N | % | N | % | N | % |
| Banned/Discouraged from using it in class | 234 | 70% | 91 | 34% | 66 | 19% |
| Encouraged/Required to use it in class | 14 | 4% | 28 | 10% | 59 | 17% |
| Neither encouraged/discouraged | 87 | 26% | 150 | 56% | 220 | 64% |
| Total N (N/A responses have been excluded) | 335 | 100% | 269 | 100% | 345 | 100% |

| Foothill | Smartphone | | Tablet or iPad | | Laptop | |
|--|------------|------|----------------|------|--------|------|
| | N | % | N | % | N | % |
| Banned/Discouraged from using it in class | 129 | 68% | 37 | 22% | 34 | 16% |
| Encouraged/Required to use it in class | 9 | 5% | 27 | 16% | 63 | 29% |
| Neither encouraged/discouraged | 53 | 27% | 104 | 62% | 120 | 55% |
| Total N (N/A responses have been excluded) | 191 | 100% | 168 | 100% | 217 | 100% |

- Over two-thirds of respondents at both De Anza and Foothill indicate smartphones are either banned or discouraged in class. Laptops are the most accepted, with over four-fifths of participants at both colleges able to use the device in class as it is encouraged or neither encouraged or discouraged.

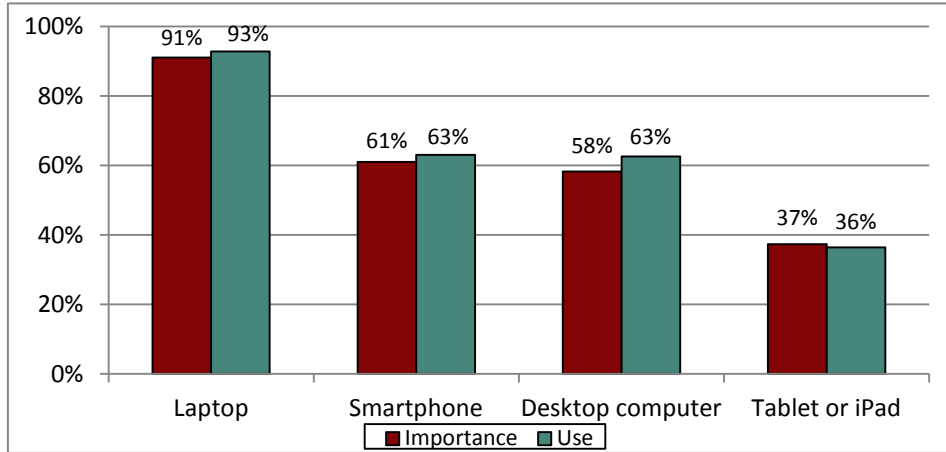
Instructors and technology: Includes most or all responses



- While more than two-thirds of all respondents feel most or all of their instructors' use and knowledge of technology is suitable, roughly half (53% at Foothill) or fewer (44% at De Anza) feel most or all of their instructors provided adequate tech training to students.

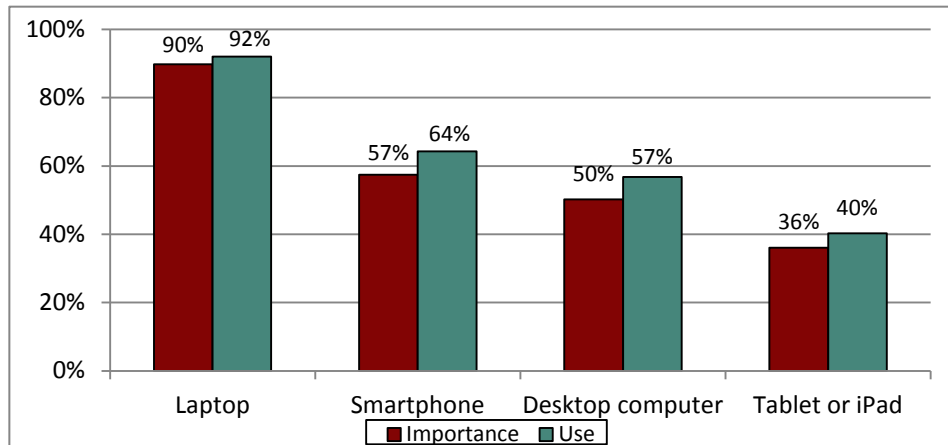
Importance of device to academic success compared to use of device for academic purposes

De Anza



Note: Includes students responding moderately important, very important, or extremely important.
Note: Includes students who use device for academic purposes only, or academic and other purposes.

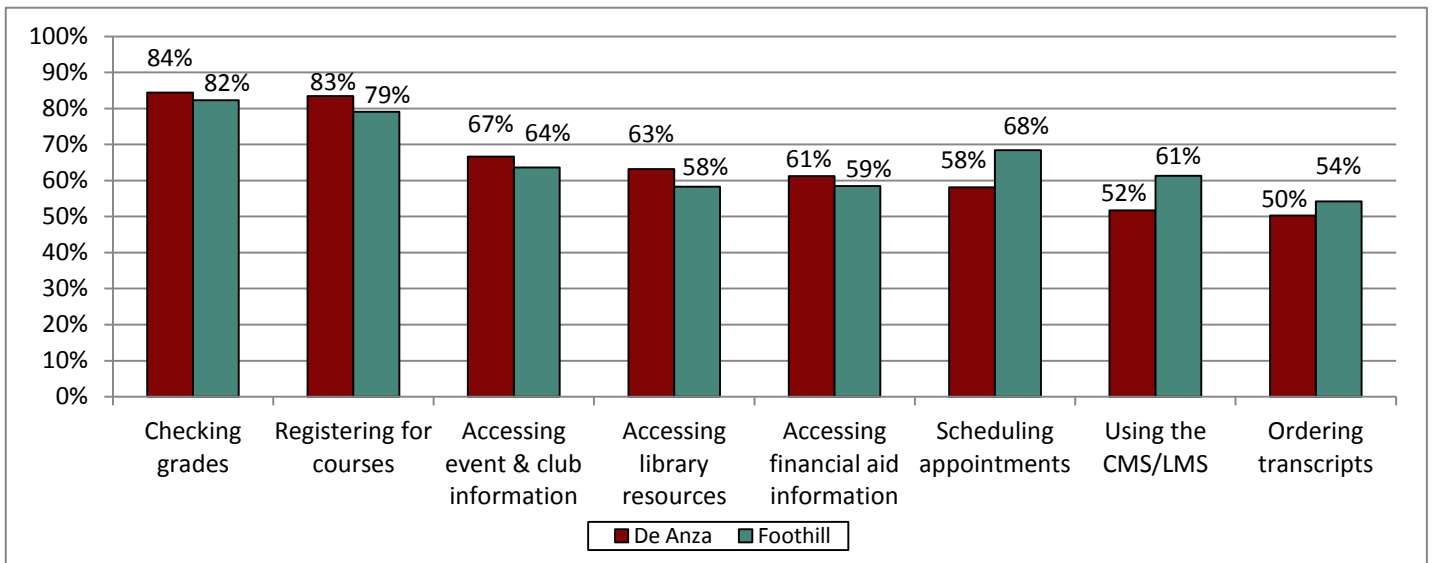
Foothill



Note: Includes students responding moderately important, very important, or extremely important.
Note: Includes students who use device for academic purposes only, or academic and other purposes.

- Respondents at both Foothill and De Anza indicate that laptops are the most important devices for academic success. Laptops are also used more frequently for academic purposes than any other device. Smartphone importance and use for academic purposes is roughly 30 percentage points lower than laptops.

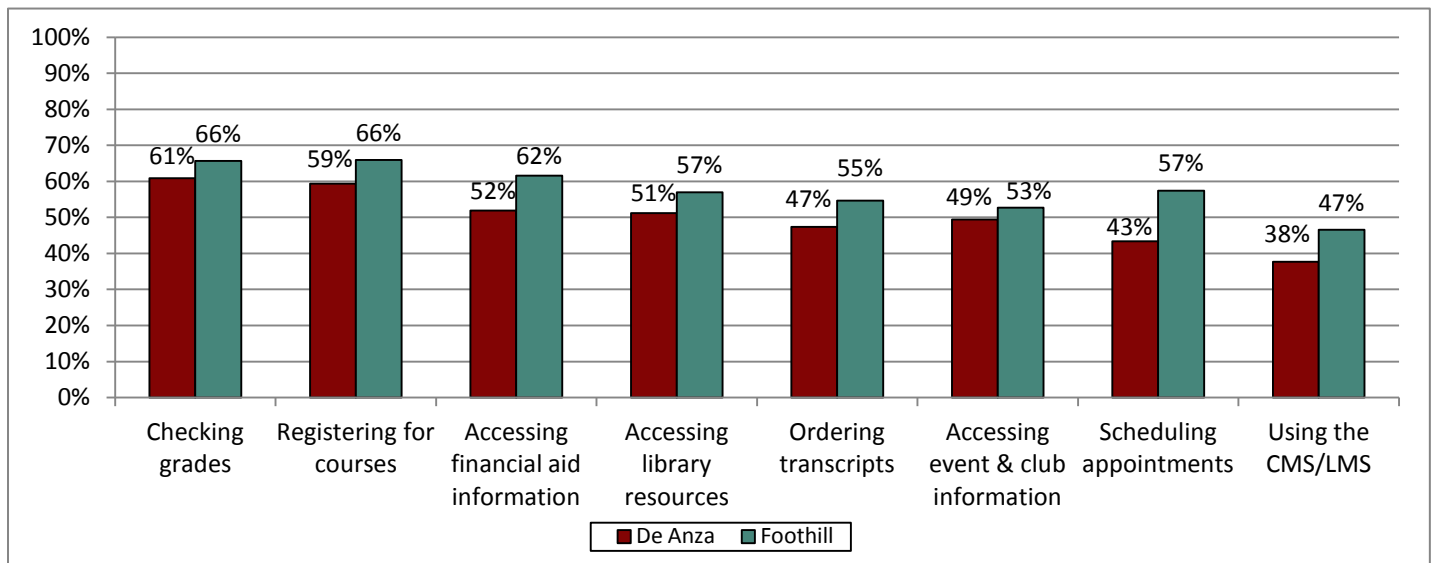
Services used on a mobile device by students within the past year



Note: Ratings do not include students who have not used the service within the past year.

- Roughly four-fifths of respondents at De Anza and Foothill used a mobile device to check grades and/or register for courses. Compared to Foothill respondents, De Anza respondents used their mobile devices at a slightly higher rate for all services, except scheduling appointments and using CMS/LMS and ordering transcripts.

Students rating support for activities from a mobile device as "Good" or "Excellent"

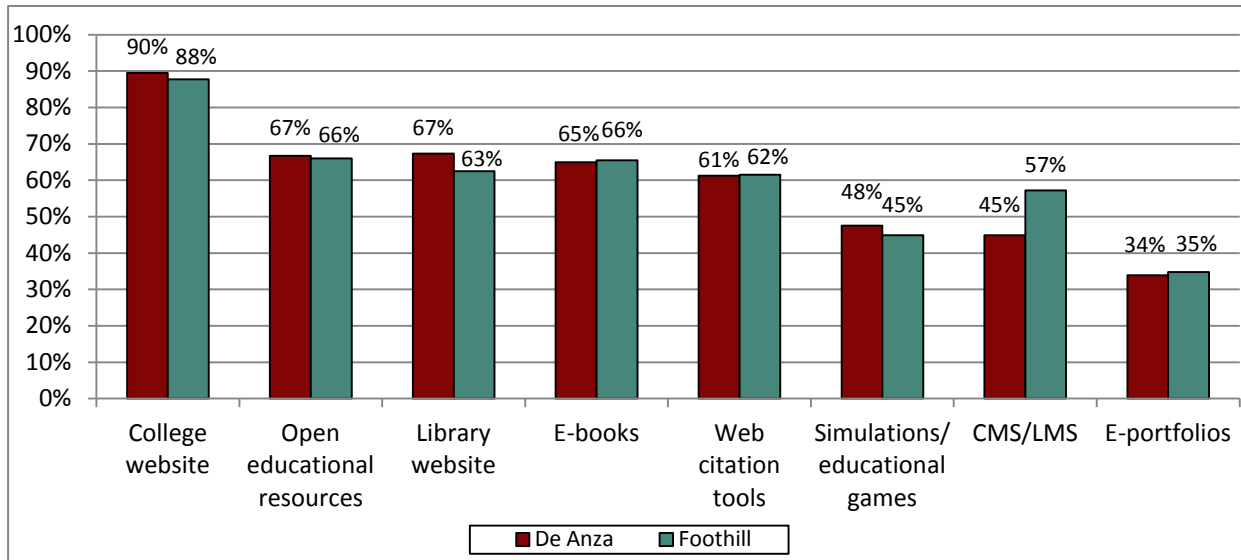


Note: Ratings do not include students who have not used the service within the past year.

- Less than two-thirds of students who used their mobile device for school services rate the support as good or excellent. The highest rated services, checking grades and registering for courses, are also the most widely used services on mobile devices. Foothill respondents rate mobile device support higher than De Anza students, especially for scheduling appointments.

Student Perspective

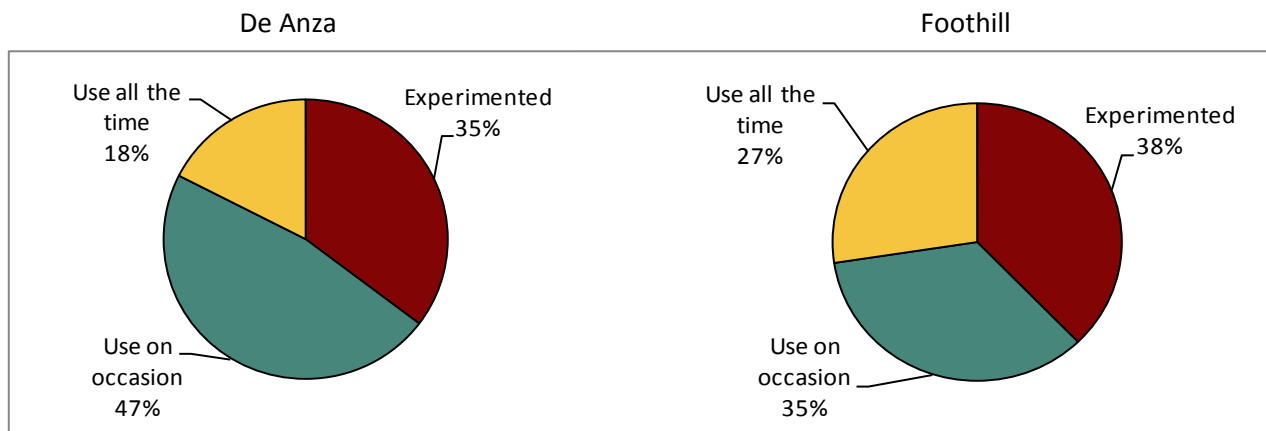
Important resources/tools for academic success



Note: Includes students responding moderately important, very important, or extremely important.

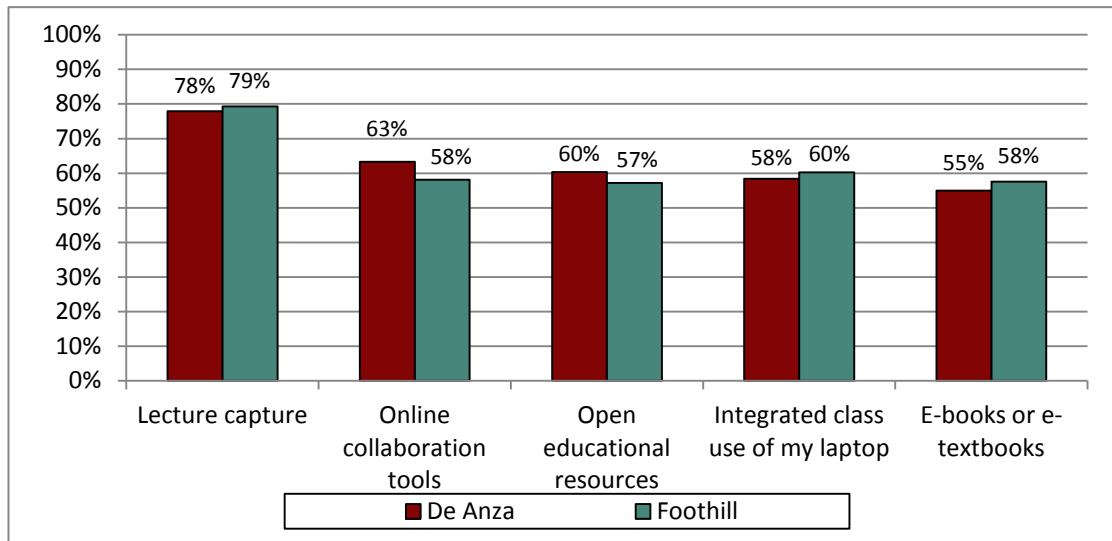
- The vast majority of respondents at De Anza (90%) and Foothill (88%) feel that the college website is an important resource in achieving academic success. Open educational resources was the second most frequently cited resource in importance (67% at De Anza and 66% at Foothill). De Anza and Foothill students rated a similar level of importance for the other resources/tools listed, except for CMS/LMS, where Foothill students rated this resource 12-percentage points higher than De Anza for being at least moderately important for academic success.

Frequency of use by students indicating use of open educational resources:



- Among students who have used open educational resources, a little over a third (35% at De Anza and 38% at Foothill) have only experimented with the platform. A higher percentage among Foothill compared to De Anza students report using open educational resources all the time (18% at De Anza and 27% at Foothill).

Top five resources/tools that students wished instructors used more



Lecture capture: N = 321 (De Anza), N = 203 (Foothill)

Online collaboration: N = 270 (De Anza), N = 184(Foothill)

Open education: N = 270 (De Anza), N = 159 (Foothill)

Integrated laptop: N = 274 (De Anza), N = 171 (Foothill)

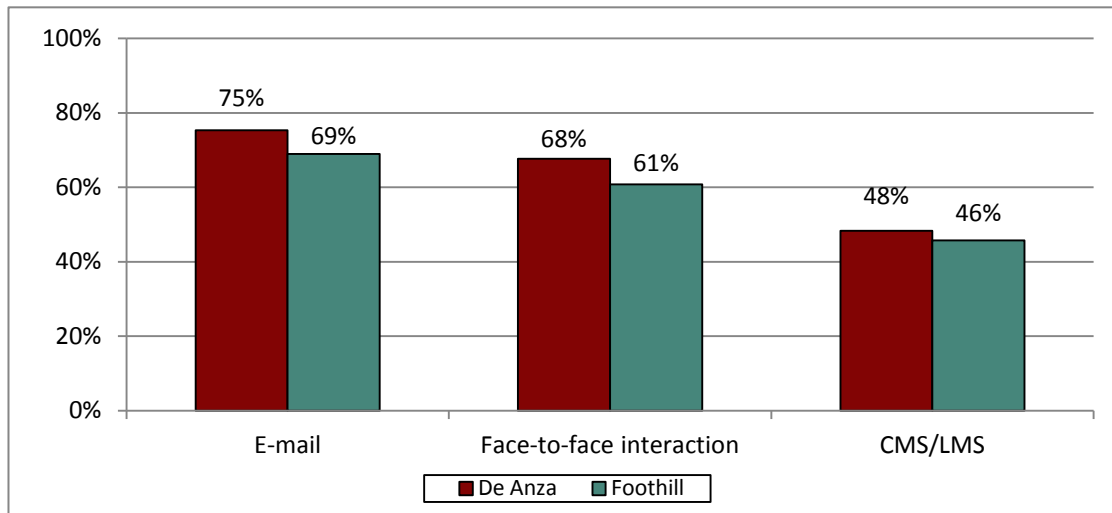
E-books: N = 271 (De Anza), N = 172 (Foothill)

Note: N/A or Don't know responses have been excluded

- Over three-fourths of respondents at both colleges wish instructors would use lecture capture more.

- Other resources/tools that respondents wished instructors would use more include (in descending order): integrated class use of tablet, simulations or educational games, integrated use of smart phone, CMS/LMS and e-portfolios.

Forms of communication that students wished instructors used more:



Face-to-face: N = 340 (De Anza), N = 199 (Foothill)

CMS/LMS: N = 240 (De Anza), N = 164 (Foothill)

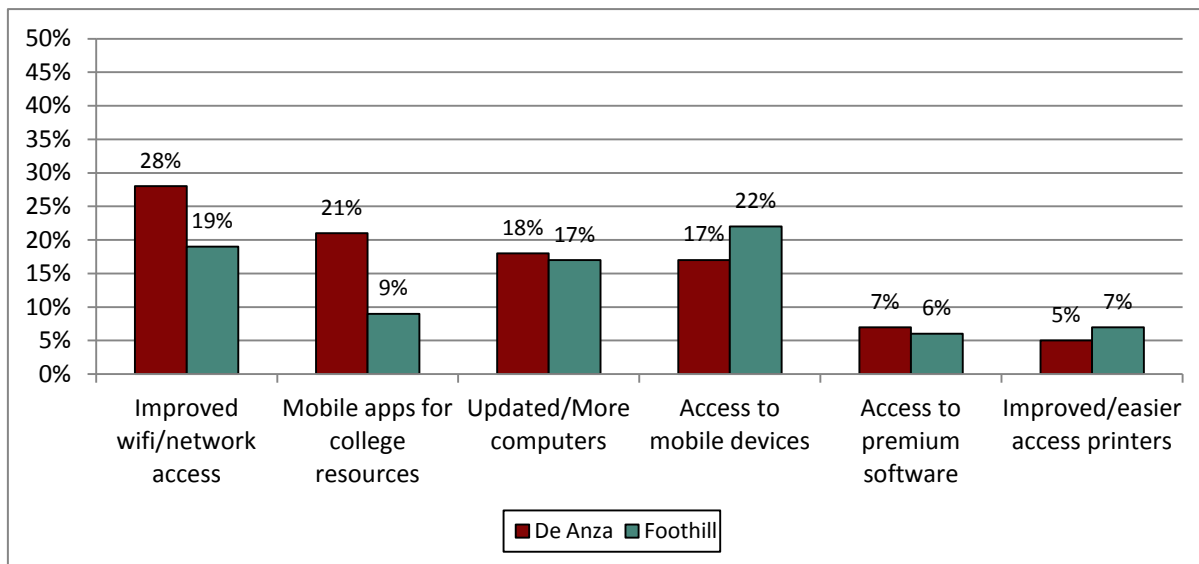
Email: N = 377 (De Anza), N = 216 (Foothill)

Note: N/A or Don't know responses have been excluded

- Over two-thirds of respondents at both colleges wish instructors would use email for communication more frequently.

- Other forms of communication students wish instructors would use more include (descending order): audio/video interaction, instant messaging/online chatting, text messages, social studying sites, internet calls, Facebook, other social networking sites and Twitter.

New, better or "cutting-edge" technologies that would benefit the college experience



Note: Responses were gathered from students who responded to an open-ended question.

- The technology cited most by De Anza respondents (28%) was improved wifi/network access, including suggestions regarding faster speeds, extended coverage and more stable connections. Among Foothill respondents, the top cited technology was mobile device access (22%), which included having rental programs, student discounts and college rental or loaner programs.

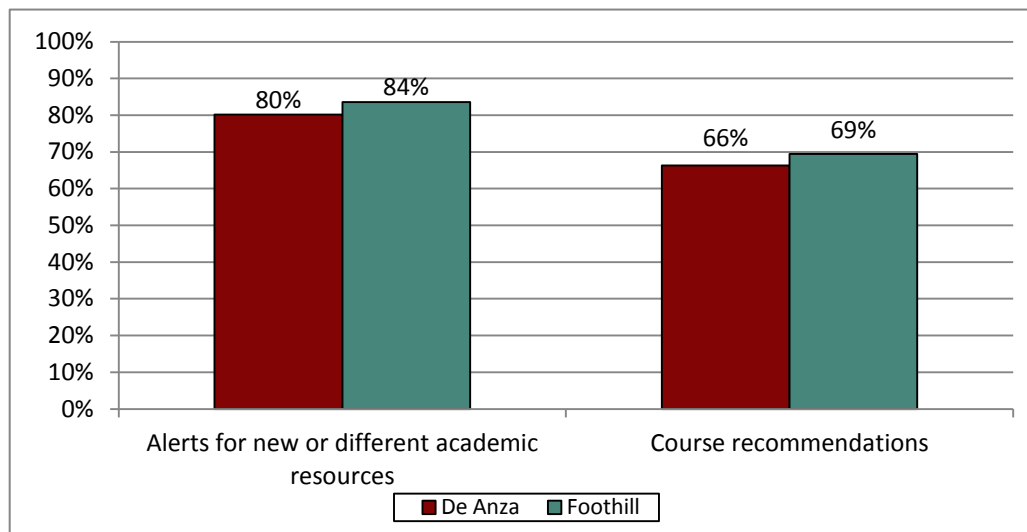
Learning environment:

| De Anza | Learn Most | | Prefer | |
|-------------------------------------|------------|------|--------|------|
| | N | % | N | % |
| Courses with no online components | 86 | 22% | 97 | 25% |
| Courses with some online components | 214 | 55% | 202 | 52% |
| Courses that are completely online | 23 | 6% | 33 | 9% |
| No preference | 65 | 17% | 56 | 14% |
| Total | 388 | 100% | 388 | 100% |

| Foothill | Learn Most | | Prefer | |
|-------------------------------------|------------|------|--------|------|
| | N | % | N | % |
| Courses with no online components | 47 | 20% | 49 | 21% |
| Courses with some online components | 142 | 60% | 129 | 55% |
| Courses that are completely online | 22 | 9% | 37 | 16% |
| No preference | 24 | 10% | 20 | 9% |
| Total | 235 | 100% | 235 | 100% |

- More than half of the respondents from De Anza (55%) and Foothill (60%) cite courses with some online components as the learning environment where they learn the most. Courses with some online components are also preferred by more than half of all respondents (52% at De Anza and 55% at Foothill). Less than 10% of respondents from both colleges feel that they learn the most with courses that are completely online.

Students interest in additional services



- Four-fifths of respondents (80% at De Anza and 84% at Foothill) have interest in their college providing guidance about course offerings, such as using “you may also like” or “we recommend” suggestions. Roughly two-thirds of respondents at De Anza (66%) and Foothill (69%) are interested in the college using information about students for alerts of new or different academic resources (e.g., tutoring, skills-building opportunities, etc.).

Student perception of technology in academic setting

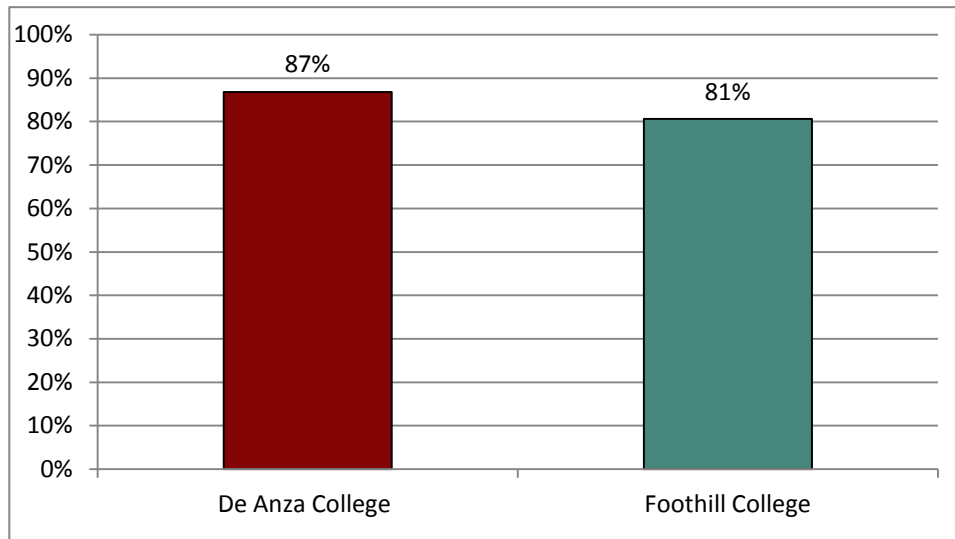
| | De Anza College | | Foothill College | |
|--|-----------------|------------|------------------|------------|
| | N | % | N | % |
| Technology better prepares me for future educational plans (i.e., transferring to another degree program, getting into graduate school). | 273 | 71% | 186 | 79% |
| Technology helps me achieve my academic outcomes. | 258 | 67% | 168 | 72% |
| When I entered college, I was adequately prepared to use technology needed in my courses. | 244 | 63% | 145 | 62% |
| I like to keep my academic life and my social life separate. | 223 | 57% | 149 | 63% |
| Technology makes me feel more connected to what’s going on at the college/university. | 210 | 55% | 137 | 59% |
| Technology makes me feel connected to professors. | 209 | 54% | 133 | 56% |
| By the time I graduate, the technology I have used in my courses will have adequately prepared me for the workplace. | 202 | 52% | 120 | 51% |
| Technology makes my education more affordable. | 201 | 52% | 114 | 48% |
| I am more likely to get involved in a campus activity when made aware of it through technology. | 195 | 51% | 114 | 49% |
| I get more actively involved in courses that use technology. | 190 | 49% | 129 | 55% |
| Technology makes me feel connected to other students. | 184 | 49% | 97 | 41% |
| The use of mobile devices in class can enhance learning. | 128 | 33% | 84 | 36% |
| I skip classes when materials from course lectures are available online. | 37 | 10% | 24 | 10% |

Note: Includes students responding agree and strongly agree.

- While over two-thirds of respondents strongly agree or agree that technology better prepares students for future educational plans (71% at De Anza and 79% at Foothill), only about half strongly agree or agree that the technology used in their courses will be adequate preparation for the workplace (52% at De Anza and 51% at Foothill).

- Two-thirds of respondents strongly agree or agree that technology helps them achieve their academic outcomes (67% at De Anza and 72% at Foothill), but only about one-third strongly agree or agree that the use of mobile devices in class can enhance learning (33% at De Anza and 36% at Foothill).

Importance of being better trained or skilled at using technologies



Note: Includes moderately important, very important and extremely important responses

- Respondents at both colleges believe that it is at least moderately important to become better trained or skilled at using available technologies to learn, study or complete coursework (87% at De Anza and 81% at Foothill).

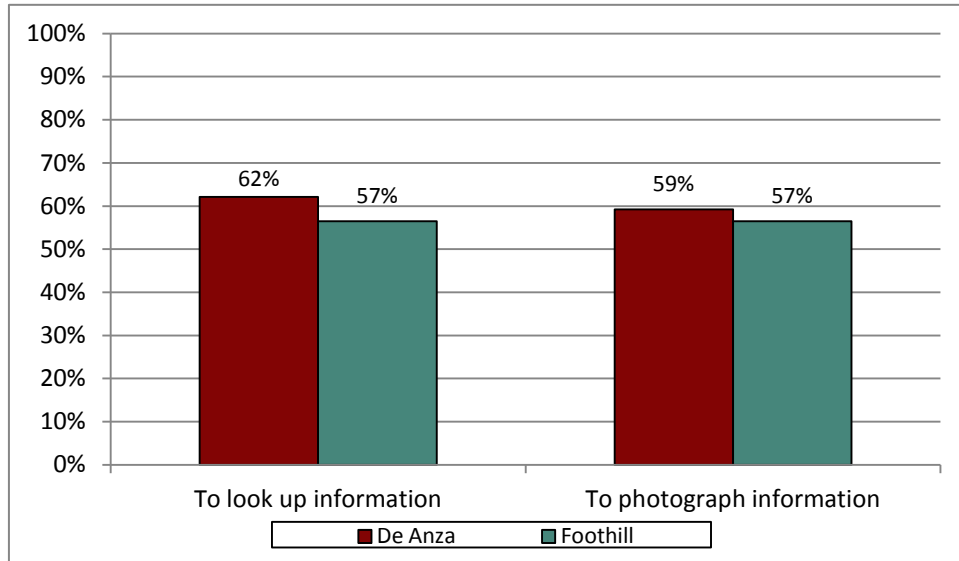
- When asked to give an example of the training desired, the most frequent response was software -related (MS Office, general applications, Adobe products, math programs, etc.) (59% at De Anza and 43% at Foothill). De Anza respondents also expressed a desire to improve basic computer skills (typing, internet searches, OS operation, etc.) at a much higher percentage rate compared to their Foothill counterparts (27% at De Anza and 2% at Foothill).

Preferred methods of training among students who feel it is important to be better trained or skilled at using technology

| | De Anza College | | Foothill College | |
|--|-----------------|-----|------------------|-----|
| | N | % | N | % |
| Training mode: Face-to-face | 109 | 62% | 62 | 59% |
| Training length: Short-term | 100 | 56% | 66 | 63% |
| Training design: On-demand web resources | 83 | 47% | 58 | 55% |
| Trainer: Your instructors | 128 | 72% | 76 | 72% |

- Respondents at both colleges tend to prefer training that was conducted face-to-face rather than online; offered short-term rather than full-term; available on-demand rather than as a traditional course; and held by instructors rather than peers or help desk staff.

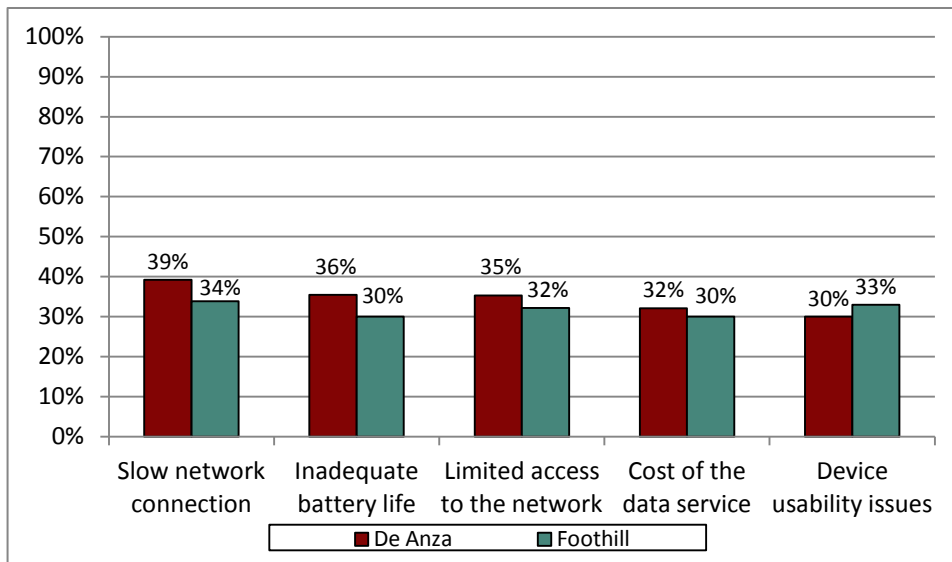
Top two ways smartphones would act as effective learning tool during class



- More than half of respondents from both colleges cite looking up and photographing information as an effective learning tool during their classes.

- Other ways smartphones are cited as an effective learning tool during class include (descending order): to access digital resources, to record instructors and to participate in class-related activities/discussions.

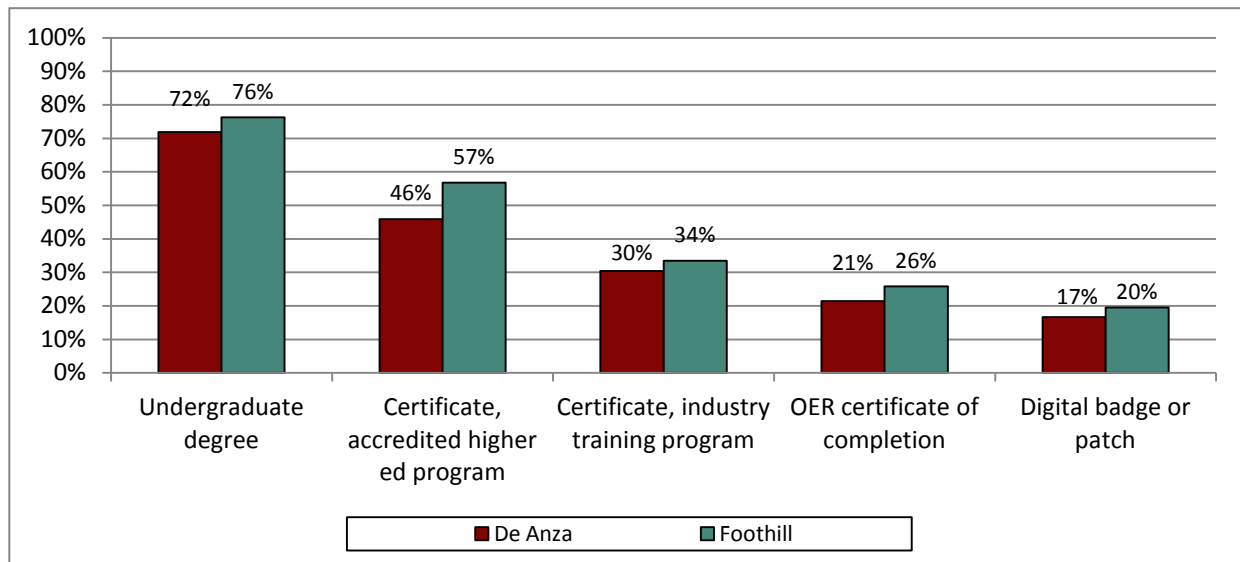
Most cited issues keeping students from using a smartphone as an academic tool



- Network issues represent two of the top three most cited issues preventing use of a smartphone as academic tool at both colleges.

- Other cited issues include (descending order): cost of the device, device usability issues (small screen, keyboard, etc.), lack of useful apps, privacy concerns and cost of apps.

When you think about documenting the skills you gain during higher education experiences, which of these would you include in your application portfolio for an employment interview?



- An undergraduate degree from an accredited college or university is most likely to be used to document skills gained during higher education, with approximately three-fourths of respondents (72% at De Anza and 76% at Foothill) indicating they would include it in their application portfolio for an employment interview. A higher percentage of Foothill compared to De Anza respondents also indicated that they would include their certificate from an accredited college or university program (46% at De Anza and 57% at Foothill).

- Documentation to be included in an application portfolio that was least cited by respondents include: letters of recommendation, examples of work, and work experience (2% at De Anza and 3% at Foothill).

This is a printable version of an online survey. The online survey varies in format based on branching or “skipping” logic programmed into the survey.

This is a PDF rendition of an online version of the survey. Some questions and answer options have been removed from the initial PDF version (published in November 2012) to maintain the 20-minute maximum time frame for the survey. The content of the final version does not substantively deviate from what was initially published, and a version showing the specific changes is available upon request from ecarstudy@educause.edu.

Message to Participants

Welcome to the 2013 ECAR student technology survey. This survey should take you no more than 20 minutes to complete, and your responses are anonymous. We ask questions about your experiences with and attitudes toward technology and your academic experiences. Your responses will help people on your campus and beyond understand how to use technology more effectively to benefit students. There are no right or wrong answers; we'd just like you to answer as honestly as you can. Participation in the survey is completely voluntary, and at any point you can choose to exit the survey.

You must be at least 18 years old and a full-time or part-time undergraduate student to complete this survey. Click the “Next” button below if you agree to participate.

Section 1: About You

1.1. What is your age? We may only survey students 18 years and older. Required.

<<Dropdown list including Under 18, 18 through 80 in one-year increments, and Over 80. Respondents under 18 must exit the survey.>>

1.2. Which of the following best describes your class standing during the current academic year? Required.

Freshman or first-year student <<Go to Q1.3>>

Sophomore or second-year student <<Go to Q1.3>>

Junior or third-year student <<Go to Q1.3>>

Senior or fourth-year student <<Go to Q1.3>>

Other type of undergraduate student <<Go to Q1.3>>

Not an undergraduate student. Note, only undergraduate students are eligible to take this survey. <<Go to end to exit survey>>

1.3. What college or university do you attend? Required.

<<Dropdown list of colleges/universities that qualify to participate in the study.>>

<<If a student selects an institution that indicated they will NOT use the ECAR incentive message, skip to Q2.1; all others go to Q1.4>>

1.4. If you would like to be entered into a drawing to receive a \$50 or \$100 Amazon.com gift certificate, please provide your e-mail address here. The drawing will be held by June 30, 2013, and e-mail addresses will be permanently deleted from our database no later than July 31, 2013. Your e-mail address will only be used for the purpose of this drawing. _____

Section 2: Device Use and Ownership

2.1 Do you own any of these devices? *Required.*

| | No, and I don't plan to purchase one within the next 12 months <<go to 2.3>> | No, but I plan to purchase one within the next 12 months <<go to 2.3>> | Yes, I currently own one |
|--------------------|---|---|--------------------------|
| Laptop | | | <<go to 2.2a>> |
| Tablet or iPad | | | <<go to 2.2b>> |
| Smartphone | | | <<go to 2.2c>> |
| Dedicated e-reader | | | <<go to 2.2d>> |
| Desktop computer | | | <<go to 2.2e>> |

2.2a What type of operating system (OS) does your *laptop* have? If you have more than one *laptop*, please select the one that you use most often for school-related work.

- Windows
- Mac
- Linux
- Other
- Don't know

2.2b What type of operating system (OS) does your *tablet or iPad* have? If you have more than one *tablet*, please select the one you use most often for school-related work.

- iOS (iPad)
- Windows OS
- Android OS
- BlackBerry OS
- webOS
- Other OS
- Don't know

2.2c What type of *smartphone* do you have? If you have more than one *smartphone*, please select the one that you use most often for school-related work.

- iPhone
- Android phone
- Windows phone
- BlackBerry phone
- Other smartphone
- Don't know

2.2d What type of e-reader do you have? If you have more than one *e-reader*, please select the one that you use most often for school-related work.

- Kindle
- Nook
- Sony Reader
- Other dedicated e-reader
- Don't know

2.2e What type of operating system (OS) does your desktop computer have? If you use more than one *desktop computer*, please select the one that you use most often for school-related work.

- Windows
- Mac
- Linux
- Other
- Don't know

2.3 Regardless of whether you own one, please tell us how you use each device.

| | Haven't used in the past year | Use for academic and other purposes | Use for academic purposes only | Use for other purposes only |
|--------------------|-------------------------------|-------------------------------------|--------------------------------|-----------------------------|
| Laptop | | | | |
| Tablet or iPad | | | | |
| Smartphone | | | | |
| Dedicated e-reader | | | | |
| Desktop computer | | | | |

2.4 How important is each device to your academic success?

| | N/A; Don't use the device | Not at all important | Not very important | Moderately important | Very important | Extremely important |
|--------------------|------------------------------|----------------------|--------------------|----------------------|----------------|---------------------|
| Laptop | | | | | | |
| Tablet or iPad | | | | | | |
| Smartphone | | | | | | |
| Dedicated e-reader | | | | | | |
| Desktop computer | | | | | | |

2.5 If you use a desktop computer provided by your institution, in what ways or for what purposes do you use it? (Desktops could be in computer labs, library spaces, etc.) Select all that apply. <<multiple responses>>

- Convenience—I don't always bring my laptop with me
- Access library resources
- Access printing services
- Access specialty software
- Access specialty hardware
- Access to faster or more stable Internet connectivity
- Use a designated workspace
- Build academic social networks
- Don't use a desktop provided by my institution
- Other; please specify: _____

2.6 Do you own a printer?

- No
- Yes

Section 3: Technology and the College Experience

3.1 What types of new, better, or “cutting-edge” technologies would benefit your college/university experience?

3.2 Thinking about the past year, please rate your institution’s support for the following activities from a mobile device:

| | Service not offered for mobile device | Haven't used service in the past year | Poor | Fair | Neutral | Good | Excellent |
|---|---------------------------------------|---------------------------------------|------|------|---------|------|-----------|
| a. Accessing library resources | | | | | | | |
| b. Checking grades | | | | | | | |
| c. Registering for courses | | | | | | | |
| d. Accessing financial aid information | | | | | | | |
| e. Ordering transcripts | | | | | | | |
| f. Using the course or learning management system (e.g., Moodle, Blackboard, Sakai, Desire2Learn, etc.) | | | | | | | |
| g. Accessing information about events, student activities, and clubs/organizations | | | | | | | |
| h. Scheduling appointments (e.g., academic advising, student health, counseling, etc.) | | | | | | | |

3.3 Thinking about your college experience within the past year, how many of your instructors:

| | None | Some | Most | All |
|--|------|------|------|-----|
| a. ...effectively use technology to support your academic success? | | | | |
| b. ...provide you with adequate training for the technology used in courses? | | | | |
| c. ...have adequate technical skills for carrying out course instruction? | | | | |
| d. ...use “the right kind(s)” of technology? | | | | |

3.4. How important is it that YOU are better trained or skilled at using available technologies to learn, study, or complete coursework? *Required.*

- Not at all important <<Go to 3.5>>
- Not very important <<Go to 3.5>>
- Moderately important <<Go to 3.5>>
- Very important <<Go to 3.4a, 3.4b, 3.5>>
- Extremely important <<Go to 3.4a, 3.4b, 3.5>>

3.4a. Give us an example of your training needs or desired technical skills: <<Ask only if Q3.4 is Very Important or Extremely Important>> _____

3.4b. In what way(s) do you want to receive more technical training? *Select all that apply.*<<Ask only if Q3.4 is Very Important or Extremely Important>> <<multiple responses>>

MODE:

- Face-to-face
- Online
- Don't care
- N/A
- Other: please describe _____

LENGTH:

- Full-term (e.g., semester, trimester, quarter)
- Short-term
- Don't care
- N/A
- Other: please describe _____

DESIGN:

- Structured like a traditional course
- On-demand web-based resources
- On-demand help desk support
- Don't care
- N/A
- Other: please describe _____

TRAINER:

- Your instructors
- Your peers
- College/university help desk staff
- Don't care
- N/A
- Other: please describe _____

3.5 How interested are you in your institution providing guidance about course offerings, such as using “you may also like” or “we recommend” suggestions?

- Don't know
- Not at all interested
- Not very interested
- Moderately interested
- Very interested
- Extremely interested

3.6 How interested are you in your institution using information about you to alert you of new or different academic resources (e.g., tutoring, skills-building opportunities, etc.)? *Required.*

- Don't know
- Not at all interested <<go to 3.6a>>
- Not very interested <<go to 3.6a>>
- Moderately interested
- Very interested
- Extremely interested

3.6a Why are you *not* interested in your institution using information they have about you to alert you of new or different academic resources? _____

3.7 Which forms of communication do you wish your instructors used less...or more?

| | Don't know or N/A 0 | Less 1 | 2 | 3 | 4 | More 5 |
|--|---------------------------|-----------|---|---|---|-----------|
| a. E-mail | | | | | | |
| b. Text messaging | | | | | | |
| c. Instant messaging/online chatting | | | | | | |
| d. Twitter | | | | | | |
| e. Facebook | | | | | | |
| f. Other social networking sites | | | | | | |
| g. Social studying sites (Cramster, CourseHero, GradeGuru, etc.) | | | | | | |
| h. Phone or phone-like communication over the Internet | | | | | | |
| i. Face-to-face (in-person) interaction | | | | | | |
| j. Audio/video interaction (virtual face-to-face with Skype "video," G-Talk "video," etc.) | | | | | | |
| k. Course or learning management system (Blackboard, Moodle, Sakai, Desire2Learn, etc.) | | | | | | |

3.8 How important are the following resources/tools to achieving your academic success?

| | Did not use in the past year | Not at all important | Not very important | Moderately important | Very important | Extremely important |
|---|------------------------------------|-------------------------|-----------------------|-------------------------|-------------------|------------------------|
| a. Academic institution's library website | | | | | | |
| b. Course or learning management system (Blackboard, Moodle, Sakai, Desire2Learn, etc.) | | | | | | |
| c. Web-based citation/bibliography tools (EndNote, CiteULike, OttoBib, etc.) | | | | | | |
| d. College/university website | | | | | | |
| e. E-portfolios | | | | | | |
| f. E-books or e-textbooks | | | | | | |
| g. Freely available course content beyond your campus (OpenCourseWare, Khan Academy, iTunes U, Mayo Clinic, etc.) | | | | | | |
| h. Simulations or educational games | | | | | | |

3.9 In the past year, to what extent have you used freely available course content external to your college/university (i.e., OpenCourseWare, Khan Academy, iTunes U, Mayo Clinic, etc.)? <<Ask only if respective answer in 3.8g indicated use in the past year>>

- () Experimented with open educational resources
- () Use open educational resources on occasion
- () Use open educational resources all the time

3.10 In the past year, to what extent have you used e-portfolios for your academic coursework? <<Ask only if respective answer in 3.8e indicated use in the past year>>

- Used in one course
- Used in a few courses
- Used in about half my courses
- Used in most of my courses
- Used in all of my courses

3.11 In the past year, to what extent have you used e-books or e-textbooks for your academic coursework? <<Ask only if respective answer in 3.8f indicated use in the past year>>

- Used in one course
- Used in a few courses
- Used in about half my courses
- Used in most of my courses
- Used in all of my courses

3.12. In the past year, to what extent have you used simulations or educational games in your coursework? <<Ask only if respective answer in 3.8h indicated use in the past year>>

- Used in one course
- Used in a few courses
- Used in about half my courses
- Used in most of my courses
- Used in all of my courses

3.13 Which resources/tools do you wish your instructors used less...or more?

| | Don't know or N/A 0 | Less 1 | 2 | 3 | 4 | More 5 |
|---|------------------------|-----------|---|---|---|-----------|
| a. Course or learning management system (Blackboard, Moodle, Sakai, Desire2Learn, etc.) | | | | | | |
| b. E-portfolios | | | | | | |
| c. E-books or e-textbooks | | | | | | |
| d. Freely available course content beyond your campus (OpenCourseWare, Khan Academy, iTunes U, Mayo Clinic, etc.) | | | | | | |
| e. Simulations or educational games | | | | | | |
| f. Lecture capture (for later use/review) | | | | | | |
| g. Online collaboration tools (Blackboard Collaborate, Adobe Connect, Google Docs) | | | | | | |
| h. Integrated use of my tablet during class | | | | | | |
| i. Integrated use of my smartphone during class | | | | | | |
| j. Integrated use of my laptop during class | | | | | | |

3.14 You mentioned that you wanted your instructors to use more freely available course content like OpenCourseWare, Khan Academy, iTunes U, Mayo Clinic, etc.

Please share examples of how you would use this material: _____

<<ask only if Q3.13d >=4>>

3.15 You mentioned that you wanted your instructors to use more simulations or educational games.

Please share examples of the types of simulations or games you would like to see more:

_____ <<ask only if Q3.13e >=4>>

3.16 What online resource do you go to *first* to learn about a new topic? (e.g., Google, your institution's library website, Wikipedia, EBSCOhost or LexisNexus, etc.). _____

Section 4: Learning Environments

4.1 In what type of learning environment do you tend to *learn most*?

- Courses with no online components
- Courses with some online components
- Courses that are completely online
- No preference

4.2 What type of learning environment do you *prefer*?

- Courses with no online components
- Courses with some online components
- Courses that are completely online
- No preference

4.3 In the past year, how many of your courses have been “blended” courses (with some online components and some face-to-face components)?

- None
- A few
- About half
- Nearly all
- All

4.4 In the past year, have you taken a completely online course? Choose all the “yes” options that apply. <<multiple responses>>

- No
- Yes, at the institution that asked me to participate in this survey
- Yes, at a different institution

4.5. In the past year, have you taken a MOOC (massive open online course) through any institution/organization (e.g., Coursera, Udacity, edX, MITx, etc.)? Required.

- No, and I don't know what a MOOC is <<Go to Q4.6>>
- No <<Go to Q4.6>>
- Yes, but I didn't complete one <<Go to 4.6>>
- Yes, and I completed one <<Go to Q4.5a, 4.6>>

4.5a. Did you receive a digital badge or certificate for completing the MOOC?

- No
- Yes

4.6 When you think about documenting the skills you gain during your higher education experiences, which of these would you include in your application portfolio for an employment interview? Select all that apply.

- Undergraduate degree/diploma from an accredited college or university
- Certificate from an accredited college or university program
- Certificate from an industry-based training program
- Certificate of completion from an institution/organization offering freely-available course content
- Digital badge or patch that represents a skills-based competency or completed activity
- N/A
- Other, please specify _____

4.7 To what extent do you agree with the following statement about social networking in conjunction with your learning?

| | Don't know | Strongly disagree | Somewhat disagree | Neither agree nor disagree | Agree | Strongly agree |
|---|------------|-------------------|-------------------|----------------------------|-------|----------------|
| a. I like to keep my academic life and my social life separate. | | | | | | |

4.8 To what extent do you agree with the following statements?

| | Don't know | Strongly disagree | Somewhat disagree | Neither agree nor disagree | Agree | Strongly agree |
|---|------------|-------------------|-------------------|----------------------------|-------|----------------|
| a. I get more actively involved in courses that use technology. | | | | | | |
| b. By the time I graduate, the technology I have used in my courses will have adequately prepared me for the workplace. | | | | | | |
| c. I skip classes when materials from course lectures are available online. | | | | | | |
| d. When I entered college, I was adequately prepared to use technology needed in my courses. | | | | | | |
| e. Technology makes me feel more connected to what's going on at the college/university. | | | | | | |
| f. Technology better prepares me for future educational plans (i.e., transferring to another degree program, getting into graduate school). | | | | | | |
| g. Technology makes me feel connected to other students. | | | | | | |
| h. Technology makes me feel connected to professors. | | | | | | |
| i. Technology helps me achieve my academic outcomes. | | | | | | |
| j. The use of mobile devices in class can enhance learning. | | | | | | |
| k. I am more likely to get involved in a campus activity when made aware of it through technology. | | | | | | |
| l. Technology makes my education more affordable. | | | | | | |

4.9 Tell us ONE thing that your instructors can do with technology to better facilitate or support your academic success. _____

4.10 Tell us ONE thing that your institution can do with technology to better facilitate or support your academic success. _____

Section 5: Your Personal Computing Environment

5.1 How many Internet-capable devices do you own? *Required.*

- None <<Go to Q5.2>>
- One <<Go to Q5.1a, 5.2>>
- Two <<Go to Q5.1a, 5.2>>
- Three <<Go to Q5.1a, 5.2>>
- Four <<Go to Q5.1a, 5.2>>
- Five <<Go to Q5.1a, 5.2>>
- Six or more <<Go to Q5.1a, 5.2>>

5.1a What is your typical in-class experience with the following devices?

| | N/A | Banned from using it in class | Discouraged from using it in class | Neither discouraged nor encouraged about using it in class | Encouraged to use it in class | Required to use it in class |
|----------------|-----|-------------------------------|------------------------------------|--|-------------------------------|-----------------------------|
| Smartphone | | | | | | |
| Tablet or iPad | | | | | | |
| Laptop | | | | | | |

5.2 How is a smartphone an effective learning tool during your classes (or how would it be)? *Select all that apply.*

<<multiple responses>>

- To look up information relevant to the lecture/discussion
- To participate in class-related activities/discussions
- To record my instructors
- To photograph information
- To access digital resources
- N/A—a smartphone is not an effective learning tool
- Other, please describe: _____

5.3 Regardless of whether you own one, which of the following issues keeps you from using a smartphone as an academic tool? *Select all that apply.* <<multiple responses>>

- Cost of the device
- Cost of the data service
- Device usability issues (small screen, keyboard, etc.)
- Inadequate battery life
- Limited access to the network (hot spots, wireless carrier coverage, etc.)
- Slow network connection
- Lack of applications that are useful to me
- Cost of applications that are useful to me
- Concern about the security/privacy problems of mobile technology
- Concern about the potential health problems of mobile technology
- N/A—a smartphone is not an effective learning tool
- Other; please specify: _____

Section 6: Demographic and Informational Questions

6.1. May we share your open-ended, written responses with your institution? If you click “Yes,” your written responses will be included in a file with all other written responses from the survey participants at your institution. Written response will be separated from the rest of the survey responses to help preserve individual participants’ anonymity. If you have included information in your written responses that could identify you, we suggest clicking “No.” Required.

- No
- Yes

6.2. Are you...?

- Male
- Female
- Prefer not to answer

6.3. What is your ultimate academic goal, regardless of your current class standing?

- Digital badges or patches that certify my skills
- A vocational/occupational certificate
- An associate’s degree (or equivalent if from an institution outside the United States)
- A bachelor’s degree (or equivalent if from an institution outside the United States)
- A master’s degree (or equivalent if from an institution outside the United States)
- A doctoral degree (or equivalent if from an institution outside the United States)
- Another professional degree (MD, DDS, JD, Ed.D, etc.)
- Other (Please describe) _____

6.4. What is your current or intended major? Pick the one that best fits your primary interest.

- Agriculture and natural resources
- Biological/life sciences
- Business, management, marketing
- Communications/journalism
- Computer and information sciences
- Education, including physical education
- Engineering and architecture
- Fine and performing arts
- Health sciences, including professional programs
- Humanities
- Liberal arts/general studies
- Manufacturing, construction, repair or transportation
- Physical sciences, including mathematical sciences
- Public administration, legal, social, and protective services
- Social sciences, including history and psychology
- Undecided
- Other (Please describe) _____

6.5. Are you currently a full-time or part-time student at the institution that asked you to complete this survey?

Part-time is fewer than 12 credit hours per quarter/semester.

- Part-time
- Full-time

6.6. What is your ethnic background? Select all that apply.

- White
- Black/African American
- Hispanic
- American Indian or Alaskan native
- Asian/Pacific Islander
- Other
- Prefer not to answer

6.7. Do you live...?

- On campus
- Off campus

6.8. Do you...?

- Take classes exclusively online
- Take some classes online and some classes face-to-face
- Take classes exclusively face-to-face

6.9 Are you currently taking courses at more than one institution (either online, in-person, or a combination online and in-person)?

- No
- Yes

Thank you for responding to our questions. Click FINISH to submit your survey.