2015 CU Teaching with Technology Survey
The United Government of Graduate Students Report   Jan. 4, 2016

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Project Background

The ASSETT (Arts and Sciences Support of Education Through Technology) group provides a variety of pedagogical and academic technology support services for the College of Arts and Sciences at CU-Boulder, and is supported by A&S student fees. ASSETT initiated a large Needs Assessment project in 2015. The project aims to describe the needs of A&S faculty and students for services around teaching and learning with technology, and inform the development of those services by ASSETT and other campus groups.

The first phase of this project involved holding interviews and focus groups with ASSETT stakeholders and CU-Boulder students, and compiling existing information about teaching and learning with technology from campus and published outside sources. Results of the first project phase informed the development of a pair of campus-wide surveys. The first survey, for undergraduate students, focused on learning with technology. The second, for faculty and graduate students, focused on teaching with technology. The faculty survey was also shaped by input from the Boulder Faculty Assembly – Administrative Services and Technology Committee, and from members of the Office of Information Technology. Some questions were designed to allow comparison of faculty and student perspectives and needs. An executive summary of the Needs Assessment project will be published on the ASSETT website in spring 2016.

Survey Methodology

Student and faculty/TA surveys were administered via the Qualtrics survey platform in October and November 2015. A random sample of 20% of the student body was invited to participate, and all CU-Boulder faculty and graduate students were invited to participate. Deans of all Schools and Colleges were invited to support the participation of their faculties via Qualtrics-distributed emails. Participation was incentivized with raffles of $25 gift cards for student participants, and $100 gift cards for faculty and TA participants. Analysis of survey datasets is ongoing. A third project phase may follow up on individual findings with student or faculty focus groups.

Response to the faculty and graduate student survey, called "CU Teaching With Technology Survey", exceeded expectations. A total of 7729 individuals across all schools of the CU-Boulder campus were invited by email to take the survey. Of these,

1945 individuals opened the survey, though 29% of these reported they had not taught undergraduates in the past few years, and did not answer further questions. 1380 participants continued the survey, of which 1224 (89%) completed it. The average time it took individuals to complete the full survey was 12 minutes. Some participants (n=58) indicated low interest in integrating technology into their courses. The survey was designed to route these individuals to a much shorter subset of questions.

Response rates to the faculty and graduate student survey can be calculated in several ways. Of the 7,729 individuals initially contacted, 25% responded. Of CU-Boulder faculty and instructors contacted (n=2396), 26% completed the survey. Of CU-Boulder graduate students contacted (n=5333), 11% completed the survey, but many contacted graduate students do not teach. According to Institutional Research data, 1298 or approximately 25% of all graduate students had TA or GPTI appointments in 2014. 601 TAs and GPTIs completed this survey, so the maximum response rate of TAs and GPTIs based on those Institutional Research numbers is 46%.

This Report:

The United Government of Graduate Students leadership team graciously participated in the effort to recruit graduate students via a personalized Qualtrics email. This report displays questions and resulting quantitative data from the 594 CU Boulder graduate students who completed the survey and met the following criteria:

- have taught undergraduates in the last few years;
- indicated moderate to high interest in integrating technology into their classes.

This report was generated directly from Qualtrics; these data have not been processed or interpreted, other than gender. The breakdown of gender for these participants is 51% female, 47% male, 1% other, and 1% not answered.

Survey participants also provided answers to 6 optional free response questions. Responses from The United Government of Graduate Students participants are found in the companion Excel file to this report, "CU Teach w Tech UGGS Free Responses Final".

1. **Have you taught undergraduates at CU-Boulder within the past few years?**

Responses were filtered so all those in this dataset answered "yes".

Answer	Bar	Response	%
Yes		594	100%
No		0	0%
Total		594	

2. **What is the best description of your teaching position at CU-Boulder?**

Answer	Bar	Response	%
TA (Graduate Teaching Assistant, have never been a GPTI)		457	77%
GPTI (Graduate Part Time Instructor)		137	23%
Other		0	0%
Faculty / Instructor		0	0%
Adjunct Faculty / Lecturer		0	0%
Total		594	

3. **Within which College, School, or Program do you teach the most undergraduates?**

For this subreport, results were filtered to only include Faculty and TA respondents from the School or College indicated below.

Answer	Bar	Response	%
Arts and Sciences		381	64%
Engineering and Applied Science		132	22%
Communication, Media, and Information		29	5%
Music		20	3%
Other		9	2%
Education		12	2%
Business		7	1%
I do not teach undergraduates		0	0%
Environmental Studies		2	0%
Continuing Education		2	0%
Law		0	0%
Libraries		0	0%
Environmental Design		0	0%
Total		594	

4. **To what extent do you agree that...**

Responses were filtered so those indicating "disagree" or "strongly disagree" to the first question were not included in this data subset. Several questions posed only to this subset are not reported here.

Question	strongly agree	agree	neither agree nor disagree	disgree	strongly disagree	Total Responses
I am very interested in incorporating technologies into my courses that make teaching more effective or efficient	35%	49%	11%	4%	1%	594
undergraduates entering CU are adequately prepared to use technology to complete coursework	14%	44%	22%	18%	3%	594

5. How skilled are your undergraduates with these activities?

Question	Very well	sort of well	not very well	N/A: no experience	Total Responses
communicating professionally via email, online discussion, video calls (Skype, Zoom, Facetime, etc.)	26%	43%	28%	3%	561
finding digital information (via library, journal websites, etc.)	22%	37%	32%	8%	552
validating the accuracy of digital information	14%	28%	43%	15%	552
keeping digital information organized	13%	39%	27%	20%	540
creating digital and web content (making a website, using a wiki, blogging, making a Powerpoint presentation, making a poster)	13%	35%	16%	36%	546

6. What are the Top 2 skills you wish students could better develop?

Question	Total Responses
finding digital information (via library, journal websites, etc.)	281
communicating professionally via email, online discussion, video calls (Skype, Zoom, Facetime, etc.)	249
validating the accuracy of digital information	245
keeping digital information organized	104
creating digital and web content (making a website, using a wiki, blogging, making a Powerpoint presentation, making a poster)	66

7. What are your preferences for teaching these kinds of undergraduate courses?

Question	very preferred	somewhat preferred	not preferred	N/A: no experience	Total Responses
typical face to face (core instruction happens in class, may also have online readings or assignments)	80%	18%	1%	1%	565
laboratory	36%	25%	7%	32%	565
project-based (including service learning, internship / practicum, performance)	29%	33%	13%	25%	565
course-based research / independent study	26%	36%	10%	28%	565
flipped (students prepare for class online, allowing time for discussion/ activities in class)	22%	40%	19%	19%	565
hybrid / blended (1/3 or more class sessions are online, the rest are face to face)	7%	27%	41%	24%	565
completely online	1%	8%	64%	27%	565

8. Do you use these in-class technologies for teaching undergraduates?

Question	use in most of my	have used in	tried, but	N/A: no	Total

	classes	some classes	do not use	experience	Responses
whiteboard / blackboard	68%	23%	3%	6%	535
Powerpoint or Keynote	53%	24%	6%	17%	522
in-class activities, problems (via worksheets, tablets, laptops, simulations, beSocratic, etc.)	42%	33%	5%	20%	521
using online resources to find high quality curricular materials	27%	38%	8%	27%	515
document camera / overhead projector	24%	20%	8%	48%	525
other presentation tool (Prezi, Google presentation, Slide Carnival, etc.)	10%	20%	16%	54%	516
in-class question, discussion tools (e.g. Twitter, TodaysMeet, aka "backchannel communication")	9%	15%	10%	66%	523
iClickers	8%	17%	9%	66%	513

9. Which are the Top 3 in-class technologies you would like to learn or use more?

Question	Top 3 to learn / use more
in-class activities, problems (via worksheets, tablets, laptops, simulations, beSocratic, etc.)	302
in-class question, discussion tools (e.g. Twitter, TodaysMeet, aka "backchannel communication")	258
using online resources to find high quality curricular materials	237
whiteboard / blackboard	166
other presentation tool (Prezi, Google presentation, Slide Carnival, etc.)	139
Powerpoint or Keynote	130
iClickers	119
document camera / overhead projector	112

10. Do you have undergraduates use these assignment technology tools?

Question	use in most of my classes	have used in some classes	tried, but do not use	N/A: no experience using	Total Responses
readings (online textbooks, articles, e-books)	48%	29%	5%	17%	429
individual written assignment, presentation and project tools (blogs, assignment submission, Powerpoint, Prezi, Adobe Creative Suite, etc.)	32%	29%	7%	32%	416
online discussions (D2L, Today's Meet, etc)	24%	26%	12%	39%	424
online practice problems / quizzes with instant feedback	24%	24%	8%	43%	526
data analysis tools (SPSS, R, Latex, Excel, NVivo, MATLAB, etc.)	20%	21%	10%	49%	516
online practice (problems, quizzes, simulations, games, CAPA, Pearson Mastering, etc.)	18%	24%	8%	50%	526
research tools (Chinook, pubMed, Google Scholar, Mendeley, Zotero, Evernote)	18%	30%	12%	40%	524
collaborative project, writing, editing tools (wikis, PBWorks, Weebly, Google Drive, Dropbox, Zotero)	16%	25%	12%	48%	413
collaborative reading and discussion tools (e.g. VoiceThread, NB, NotaBene, Highlighter, beSocratic)	5%	8%	8%	79%	404

11. Which are your Top 3 assignment technology tools to learn about or use more?

Question	Top 3 to learn / use more
data analysis tools (SPSS, R, Latex, Excel, NVivo, MATLAB, etc.)	232

research tools (Chinook, pubMed, Google Scholar, Mendeley, Zotero, Evernote)	209
online practice problems / quizzes with instant feedback	202
online practice (problems, quizzes, simulations, games, CAPA, Pearson Mastering, etc.)	165
collaborative reading and discussion tools (e.g. VoiceThread, NB, NotaBene, Highlighter, beSocratic)	151
collaborative project, writing, editing tools (wikis, PBWorks, Weebly, Google Drive, Dropbox, Zotero)	144
online discussions (D2L, Today's Meet, etc)	140
individual written assignment, presentation and project tools (blogs, assignment submission, Powerpoint, Prezi, Adobe Creative Suite, etc.)	117
readings (online textbooks, articles, e-books)	81

12. Do you use any of these online tools in your teaching?

Question	use in most of my classes	have used in some classes	tried, but do not use	N/A: no experience using	Total Responses
D2L course platform	62%	19%	4%	14%	525
videos/animations produced elsewhere	22%	35%	7%	36%	531
D2L as a portal to other learning tools (homework websites, videos, simulations, Nota Bene/NB, Voice Thread, etc.)	18%	22%	10%	49%	521
videos/animations produced for my course (online lectures, Lecture Capture, Camtasia, Vimeo)	10%	16%	9%	65%	528
alternative to D2L (moodle, Google Site, wordpress course website)	10%	13%	12%	64%	526
simulations, PhET, educational games	7%	22%	8%	63%	514
chat-based office hours or meetings (D2L chat, Google Hangouts, texting, tutoring portals, etc.)	6%	8%	11%	76%	524
online tutorials and trainings (OIT tutorials, Lynda.com videos)	5%	10%	12%	73%	523
videoconferencing-based office hours or meetings (Zoom, Skype, Continuing Education's Composition hub, etc.)	4%	8%	11%	78%	519

13. Which are the Top 3 online tools you would like to learn about or use more?

Question	Top 3 to learn / use more
videos/animations produced for my course (online lectures, Lecture Capture, Camtasia, Vimeo)	195
simulations, PhET, educational games	180
chat-based office hours or meetings (D2L chat, Google Hangouts, texting, tutoring portals, etc.)	174
D2L course platform	156
videos/animations produced elsewhere	148
online tutorials and trainings (OIT tutorials, Lynda.com videos)	127
alternative to D2L (moodle, Google Site, wordpress course website)	123
videoconferencing-based office hours or meetings (Zoom, Skype, Continuing Education's Composition hub, etc.)	114
D2L as a portal to other learning tools (homework websites, videos, simulations, Nota Bene/NB, Voice Thread, etc.)	105

14. What do you think and do about undergraduates being distracted by digital devices (or distracting others) in small classes?

Question	Total Responses
discuss why it is a problem / how it impacts learning	266

limit or ban phones in class	255
do nothing, leave choices up to individual students	219
enforce the device use policy of the class (points off, call out policy-breakers, ask students to move to a zone)	173
limit or ban laptops / tablets in class	156
I am unsure what to do about this	126
have students vote on a digital device policy	68
make a device seating zone (for laptop and phone users)	43

15. **What do you think and do about undergraduates being distracted by digital devices (or distracting others) in large classes?**

Question	Total Responses
do nothing, leave choices up to individual students	240
discuss why it is a problem / how it impacts learning	207
limit or ban phones in class	171
I am unsure what to do about this	129
enforce the device use policy of the class (points off, call out policy-breakers, ask students to move to a zone)	121
limit or ban laptops / tablets in class	100
make a device seating zone (for laptop and phone users)	73
have students vote on a digital device policy	44

16. **Which of the following are the most effective types of learning opportunities about teaching, for you? Choose your top 2-3.**

Answer	Bar	Response	%
meeting 1:1 with an expert		358	63%
hour-long workshop		320	57%
half-day or day-long workshop		179	32%
faculty learning community (meeting across a semester, e.g. ASSETT's Hybrid/Online Course Design Seminar)		134	24%
expert hands-on support for course redesign (e.g. OIT's Academic Design Team)		127	22%
contact an expert on-call (phone, email, etc)		118	21%
opportunity to apply for grant funding with expert support, for a project I design (e.g. ASSETT's Development Awards)		78	14%
multi-day retreats / institutes		50	9%
other		26	5%

17. **When are you most likely to attend a faculty learning opportunity about teaching?**

Answer	Bar	Response	%
right before semester		312	55%
afternoons		274	48%
mornings		268	47%
early in week (M/T)		255	45%
early semester		226	40%
summer		217	38%
mid-week (W/Th)		177	31%
Fridays		169	30%

right after semester		62	11%
I am unlikely to attend one		52	9%
mid semester		35	6%
other		11	2%

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