2015 ASSETT Student Learning Technology Survey

Dec 15, 2015
Preliminary Report

Prepared by:
Sarah Wise, Education Researcher
Megan Meyer, Research Assistant

In October 2015, ASSETT administered an online survey of CU-Boulder undergraduate students. A random sample of 20% of the student body was invited to participate, and 6% (n=470) completed 80% or more of the survey. Participation was incentivized using a raffle of eight $25 gift cards.

The following tables summarize the quantitative survey questions and results for all respondents. A full report of the methodology and findings of this survey, including those of additional free response questions, will be available at assett.colorado.edu/assessment/reports in early 2016.

Table of Contents **Page**

A. Courses and Learning Experiences

Table 1. Which are the best in-class components for learning? (n=467, participants chose up to 4)

	Use more in **large** classes (%)	Use more in **small** classes (%)
demonstrations	65	44
lecture full session	62	29
professor uses student feedback / homework responses to plan their teaching	53	45
short activities / problem solving	45	52
whole class discussion / Q&A with professor	37	55
short / mini lectures	29	36
laboratory activities / research activities	27	27
small group discussion	26	55
professor calls on students randomly to give ideas / answers	21	26
debates	13	28
student presentations	8	26

Table 2. Which are the best out-of-class components for learning? (n=466, participants chose up to 2)

	Use more in **large** classes (%)	Use more in **small** classes (%)
reviewing materials (your notes, professor's lecture notes, powerpoint slides)	65	55
practicing questions and other activities (quizzes, homework, flashcards, simulations, games, analyzing data)	60	62
reading textbooks, articles	37	36
viewing videos, lecture capture	33	20
writing (papers, articles, etc.)	12	27
creating art/ creating media / solo performing	8	22

Table 3. Which are the best interactive out-of-class components for learning?
(n=468, participants chose up to 2)

	Use more in **large classes (%)**	Use more in **small classes (%)**
office hours with professor or TA	54	52
help room, optional co-seminar, optional review session	48	28
discussions, small group study sessions	46	65
working with a tutor / peer tutor / LA	25	24
group projects (posters, presentations, webpages, videos, performances, etc.)	21	41

Table 4. How helpful are these course styles for your learning? Which would you like professors to offer more? (n=458, participants chose up to 3)

	Very Helpful	**Somewhat Helpful**	**Not Very Helpful**	**N/A: no experience**	**Offer More**
typical face to face (core instruction happens in class, often have some online components like readings or homework online)	74%	24%	2%	1%	62%
project-based, community service learning, or internship/practicum	37%	32%	11%	20%	39%
classes that involve learning new technology, software, or computer skills	34%	38%	14%	15%	33%
flipped (information presented online, discussion/ activities occur mostly in class)	22%	37%	21%	20%	26%
laboratory	32%	39%	11%	18%	25%
course-based research / independent study	25%	32%	14%	29%	25%
hybrid / blended (1/3 or more class sessions are online instead of face to face)	10%	29%	27%	34%	21%
completely online	6%	22%	40%	31%	7%

B. Learning Technologies

Table 5. How helpful are these in-class learning tools? Which would you like professors to use more? (n=467, participants chose up to 2)

	Very Helpful	Somewhat Helpful	Not Very Helpful	N/A: no experience	Use More
in class activities, problems (via worksheets, tablets, laptops, simulations, beSocratic, etc.)	51%	37%	8%	4%	46%
Clickers	41%	38%	16%	5%	34%
whiteboard / blackboard / document camera / overhead projector	53%	37%	8%	2%	34%
Powerpoint, Keynote, etc.	54%	37%	8%	1%	33%
in-class question & discussion tools (e.g. Twitter, TodaysMeet, aka"backchannel communication")	26%	26%	15%	34%	17%
other presentation tool (Prezi, Google presentation, Slide Carnival, etc.)	24%	46%	14%	15%	11%

Table 6. How helpful are these assignment, research, and collaborative tools? Which would you like professors to have students use more? (n=465, participants chose up to 2)

	Very Helpful	Somewhat Helpful	Not Very Helpful	N/A: no experience	Use More
collaborative project, writing, editing tools (wikis, PBWorks, Weebly, Google Drive, Dropbox, Adobe Connect)	48%	32%	8%	12%	53%
research tools (Chinook, pubMed, Google Scholar)	34%	35%	8%	23%	33%
data analysis tools (SPSS, R, Latex, Excel, Stata, inVivo, MatLab, etc.)	32%	38%	11%	19%	33%
e-portfolios (online collection of your work in a course or across a major)	20%	23%	8%	49%	19%
collaborative reading and discussion tools (e.g. NB, NotaBene, Highlighter, VoiceThread)	15%	22%	11%	52%	18%
information organizers (Mendeley, Zotero, Evernote)	14%	21%	12%	53%	12%

Table 7. How helpful are these out-of-class online learning tools?
Which would you like for professors to use more? (n=460, participants chose up to 4)

	Very Helpful	Somewhat Helpful	Not Very Helpful	N/A: no experience	Use More
online practice problems, quizzes	62%	32%	5%	1%	56%
instant feedback on online problems/ quizzes	72%	20%	5%	3%	56%
videos, animations	42%	44%	9%	5%	35%
D2L as a portal to other learning tools (homework websites, videos, simulations, Nota Bene/NB, Voice Thread, etc.)	41%	39%	11%	9%	26%
D2L course platform	40%	41%	15%	4%	25%
readings: online textbooks, articles, e-books	32%	47%	19%	2%	25%
online lectures, Lecture Capture	32%	31%	16%	20%	25%
simulations, PhET, educational games	25%	38%	12%	25%	22%
online office hours (via Skype, Google Hangouts, etc)	23%	34%	13%	30%	16%
online tutorials and trainings (OIT tutorials, Lynda.com videos)	17%	20%	15%	48%	16%
online tutoring (writing, problem solving, etc)	18%	29%	14%	39%	14%
online discussions	14%	34%	33%	19%	10%

C. Digital Distraction and Digital Communication

Table 8. What should professors do about students being distracted by digital devices in class (or distracting others)? (n=455, participants chose up to 3)

	In large classes	In small classes
do nothing, leave choices up to individual students	67%	43%
make a device seating zone (for all laptop and phone users)	50%	31%
discuss why it is a problem, show how it impacts learning / grades	38%	40%
make multitasking seating zone (just for those planning to multitask with devices)	37%	27%
limit or ban phone use in class	31%	45%
have students vote in a digital device policy for the course	30%	38%
enforce the device use policy of the class (points off, call out policy-breakers, ask students to move to a zone)	22%	32%
limit or ban laptop / tablet use in class	20%	33%

Table 9. In which ways would you prefer to communicate with your professors and TAs? (n=461, participants chose up to 3)

email	90%
face to face / office hours	87%
before / after class	73%
online discussion forum / online group office hour	19%
online chat / messaging	11%
text message / SMS	9%
social media (Facebook group / Google Group / Twitter, etc)	4%
video chat / Skype	3%
phone / audio Skype	2%

D. Digital Literacy, Preparation, and Connection

Table 10. How well do you feel you do these things? What would you like the University to better support students doing or learning? (n=391, participants chose up to 3)

	Very Well	Sort of Well	Not Very Well	N/A: no experience	Want Support
communicating professionally via email, online discussion, video calls (Skype, Zoom, Facetime etc)	54%	32%	10%	4%	31%
creating digital and web content (making a website, using a wiki, blogging, making a Powerpoint presentation, making a poster)	29%	42%	19%	10%	28%
finding digital information (via library, journal websites, etc.)	49%	38%	11%	2%	27%
keeping digital information organized	47%	39%	13%	2%	26%
learning how to find new / getting help finding new digital information	46%	43%	10%	2%	21%
avoiding digital distraction when you don't want it	29%	37%	32%	2%	20%
validating the accuracy of digital information	32%	49%	14%	5%	16%

Table 11. To what extent do you agree that... (n=467)

	Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree
when I entered college, I was adequately prepared to use technology needed in my courses	36%	43%	12%	8%	1%
I wish I had been better prepared to use University-specific technology when I entered college (course registration, department websites, D2L, Chinook, myCUinfo, etc.)	19%	28%	25%	21%	7%
technology makes me feel connected to my professors	23%	50%	16%	9%	22%
technology makes me feel connected to other students	21%	40%	23%	13%	3%
technology makes me feel connected to what's going on at the University	30%	50%	16%	9%	2%

E. Participant Demographics (n=470)

Table 12. What is your gender?

Female	57%
Male	42%
Other	1%

Table 13. What is your class year?

freshman	28%
sophomore	24%
junior	20%
senior	17%
super senior (5th year and beyond)	7%
non degree seeking / auditor	3%

Table 14. Which College, School, or Program are you with at U. of Colorado at Boulder?

Arts and Sciences	61%
Engineering and Applied Science	21%
Business	9%
Media, Communication and Information	4%
Environmental Design	2%
Not Affiliated	2%
Music	1%

No participants were affiliated with Law, Libraries, Continuing Education or Education.

Table 15. Which is the primary department you are affiliated with?

	Count	Percentage
Psychology & Neuroscience	58	12.4%
Undetermined	38	8.2%
Integrative Physiology	31	6.7%
Mechanical Engineering	21	4.5%
Computer Science	19	4.1%
Chemistry & Biochemstry	15	3.2%
Engineering	15	3.2%
EE Biology	14	3.0%
Aerospace Engineering Sciences	13	2.8%
Communication	12	2.6%
English	12	2.6%
Marketing	12	2.6%
Chemical & Biological Engineering	11	2.4%
Finance	11	2.4%
Economics	10	2.1%
Electrical, Computer and Energy Engineering	10	2.1%
Astrophysical & Planetary	9	1.9%
Environmental Studies	9	1.9%
Political Science	9	1.9%
Advertising, PR and Media Design	8	1.7%
Business	7	1.5%
Environmental Design	7	1.5%
International Affairs	7	1.5%
Mathematics	7	1.5%
Physics	7	1.5%
Sociology	7	1.5%
Speech, Language & Hearing Sciences	7	1.5%
Civil, Environmental & Architectural Engineering	6	1.3%
MCD Biology	6	1.3%

Art and Art History	5	1.1%
Environmental Engineering	5	1.1%
Film Studies	5	1.1%
Geography	5	1.1%
Geological Studies	5	1.1%
Accounting	4	0.9%
Architecture	4	0.9%
Asian Languages and Civs	4	0.9%
Journalism	4	0.9%
Linguistics	3	0.6%
Management & Entrepreneurship	3	0.6%
Anthropology	2	0.4%
Music	2	0.4%
Philosophy	2	0.4%
Spanish & Portuguese	2	0.4%
Technology, Arts & Media	2	0.4%
Theatre & Dance	2	0.4%
Voice and Opera	2	0.4%
Women and Gender Studies	2	0.4%
Applied Mathematics	1	0.2%
Continuing Education	1	0.2%
History	1	0.2%
Media Studies	1	0.2%
Nursing	1	0.2%
Photography	1	0.2%

Table 16. Do any of these describe you or your affiliations? Choose all that apply.

RAP (Residential Academic Program)	33%
first generation (for example, parents, grandparents did not go to college)	31%
under-represented minority	20%
have a learning, physical, or mental health disability*	15%
international student	13%
student-athlete	12%
LA (learning assistant)	6%
MASP (Miramontes Arts and Sciences Program)	4%
veteran or ROTC (Reserve Officers Training Corps)	4%