

Educational Technology Survey 2005: Overview and Descriptive Statistics

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INTRODUCTION

In Spring 2005, a collaborative group of University of Washington units concerned with the role of computing technologies in academics and research administered surveys to instructors and students at all three UW campuses. The units directly involved in this endeavor were:

- o the Office of Learning Technologies,
- o the University Libraries,
- o Educational Outreach,
- o Computing & Communications,
- o the Student Technology Fee Committee,
- o Classroom Support Services, and
- o the Office of Educational Assessment (OEA).

The ultimate aim of the surveys was to improve teaching and learning at the UW by: 1) contributing to a University-wide conversation about the uses of instructional technology, 2) increasing student and faculty awareness of the ways in which technology can be used in the service of teaching and learning, 3) facilitating informed decision-making regarding allocation of UW resources, and 4) informing the design of tools and services that capitalize on successes, meet challenges, and best serve the UW community's needs and desires. This project was a follow-up to surveys and focus groups conducted in 2001 and 2002.

METHOD

Samples

Instructors. Instructors were defined as all UW employees listed as the instructor of record for at least one course section at the Seattle, Bothell, or Tacoma campus (but not including the Law School) during Spring 2004, Autumn 2004, or Winter 2005. The Office of Data Management provided a dataset that included records for 5,133 unique instructors. Staff at Computing & Communications queried the payroll database in order to obtain academic rank and contact information (UW email address and campus box number) for these cases. That query returned

5,130 records, but 3,384 of the records were missing some or all of the critical data. In other words, only 1,749 of the records included rank, campus box number, and UW email address. We retrieved information for 301 of the incomplete records from OEA's course evaluation database. Inspection of the 2,931 records that still were missing academic rank and email address suggested that these were student instructors; thus, we queried the UW student database for name matches among students enrolled Spring 2004, Autumn 2004, or Winter 2005. A recursive matching and cleaning process that also excluded undergraduate students yielded 1,785 graduate student matches. After excluding those instructors whose only courses were General Studies, independent study, training, or variable-credit clinical courses, as well as those for whom we could find neither UW email address nor campus box number, the final sample consisted of 4,390 cases.

Students. The initial population was defined as all students enrolled for credit as of the tenth day of Spring 2005 at Seattle, Bothell, or Tacoma ($N=40,519$). From this pool were excluded 1,520 graduate teaching assistants recruited for the instructor survey (the remaining 265 were not enrolled in Spring). As the online questionnaire required logging in with UW NetID, we also excluded 155 students who did not have a valid UW NetID in the student database. Notably, 140 of those cases were non-matriculated students. From this reduced population of 38,844 we randomly selected 3,500 students.

Mailing

Survey recruiting took place during the fourth through ninth weeks of Spring quarter. Instructors were contacted twice via email and twice via campus mail. Students were contacted five times, and the second contact was via U.S. mail to their local addresses. Each mailing included a URL for the Web version of the appropriate questionnaire, but the campus and local address mailings also included a paper copy. Recipients were also informed that they could remove their names from the mailing list without completing the questionnaire by returning a Participant ID form. Follow-up contacts were limited to those instructors and students who had not yet responded. As an incentive to participate, students had the opportunity to enter a drawing for one of three \$100 University Book Store gift certificates.

Questionnaires

The survey committee collaborated in the development of two questionnaires: one for students and one for instructors. The overarching goal was to create forms that were as parallel as possible given the differing needs and practices of the two populations. Another concern was that the data from the present survey be comparable to those collected in 2001 and 2002. Thus, the committee began by carefully reviewing the content of the 2002 student questionnaire, as well as the results obtained with it, and proceeded to modify it to address psychometric issues and prevailing concerns in the domain of educational technology. The instructor questionnaire was then constructed by modifying the content of the finalized student questionnaire as appropriate, and adding instructor-specific content derived from the original (2001) instructor form. For a more detailed account of the development process, please see http://catalyst.washington.edu/projects/edtech_2005report.html.

Both instruments consisted of several items grouped within five general categories: personal characteristics (e.g., college of one's appointment or major, rank or class, sex, age), use of technology (including self-ratings of competency with specific tasks and frequency of use of various software and hardware), use of UW campus resources (e.g., multimedia classrooms), and attitudes toward various technology-related practices (including technology self-efficacy ratings). The complete questionnaires may be found here:

http://catalyst.washington.edu/projects/edtech_2005report.html.

RESULTS

Response Rates

Instructors. A total of 69 instructors directly declined to participate. There were 301 cases for whom we did not have a valid UW email address, and the campus addresses for 49 of those proved to be unusable or incorrect. Thus, the 1,422 completed questionnaires corresponded to a response rate percentage of 34.4%. Somewhat more than half (57%) responded via the Web.

Students. A total of 85 students directly declined to participate. All students were reachable at least by email, so the final tally of 987 responses corresponded to a response rate percentage of 28.2%. The vast majority (76%) responded via the Web.

Questionnaire responses

An overview of the student and instructor responses can be found in the following pages of tables. The demographic results have been broken down by response mode (paper vs. Web). For all other items, only the overall frequency percentages and means (where appropriate) are reported. The student tables begin on page 11.

Educational Technology Survey 2005: Instructors Descriptive Statistics Tables

Unless otherwise indicated, statistics in the following tables are frequency percentages.

Response Mode

	Web	Paper	Total
<i>n</i>	816	606	1422
%	57.4	42.6	100.0

College by Mode

(sub)College	Web		Paper		Total	
	<i>n</i>	Row %	<i>n</i>	Row %	<i>n</i>	Column %
Architecture & Urban Planning	15	50.0	15	50.0	30	2.2
A&S Arts	32	50.8	31	49.2	63	4.5
A&S Social Sciences	122	62.6	73	37.4	195	14.0
A&S Natural Sciences	191	63.0	112	37.0	303	21.7
A&S Humanities	95	57.2	71	42.8	166	11.9
Business Administration	23	59.0	16	41.0	39	2.8
Education	9	37.5	15	62.5	24	1.7
Engineering	94	55.3	76	44.7	170	12.2
Ocean/Fishery Science	20	52.6	18	47.4	38	2.7
Forest Resources	16	48.5	17	51.5	33	2.4
Public Health/Community Med	6	35.3	11	64.7	17	1.2
Nursing	21	58.3	15	41.7	36	2.6
Pharmacy	9	64.3	5	35.7	14	1.0
Public Affairs	3	100.0	0	.0	3	.2
Information School	11	78.6	3	21.4	14	1.0
Social Work	9	75.0	3	25.0	12	.9
Dentistry	3	42.9	4	57.1	7	.5
Medicine	33	68.8	15	31.3	48	3.4
Bothell	17	58.6	12	41.4	29	2.1
Tacoma	30	78.9	8	21.1	38	2.7
Educational Outreach	4	44.4	5	55.6	9	.6
Other	45	42.5	61	57.5	106	7.6
Total	816	58.0	606	42.0	1422	100.0

Rank by Mode

	Web	Paper	All
Full Prof	18.5	30.6	23.7
Assoc Prof	12.4	13.3	12.8
Asst Prof	10.9	8.0	9.6
Lecturer	12.1	13.3	12.6
Instructor	5.0	3.5	4.4
TA	33.9	23.3	29.4
Other	7.1	8.0	7.5
Valid <i>n</i>	799	601	1400
Missing	17	5	22

Tenure & Appointment by Mode

	Tenured				Current Appointment			
	No	Yes	Valid <i>n</i>	Missing	Part-time	Full-time	Valid <i>n</i>	Missing
Web	70.3	29.7	761	55	36.6	63.4	794	22
Paper	57.5	42.5	583	23	29.2	70.8	569	37
All	64.7	35.3	1344	78	33.5	66.5	1363	59

Sex by Mode

	Web	Paper	All
Male	53.2	58.9	55.6
Female	46.8	41.1	44.4
Valid <i>n</i>	801	589	1390
Missing	15	17	32

Age by Mode

	Web	Paper	All
Minimum	21	22	21
Maximum	77	80	80
Mode	25	27	27
Median	38	47	42
Mean	41.0	45.7	43.1
SD	13.1	14.1	13.7
Valid <i>n</i>	747	567	1314
Missing	69	39	108

Residence Broadband by Mode

	Web	Paper	All
Yes	75.2	67.7	72.0
No	24.1	30.9	27.0
Don't Know	.7	1.4	1.0
Valid <i>n</i>	805	582	1387
Missing	11	24	35

Number of classes and students, Autumn-Spring quarters

	100-200 Level		300-400 Level		500+ Level	
	Number of classes	Number of students	Number of classes	Number of students	Number of classes	Number of students
Minimum	1	3	1	1	1	1
Maximum	14	1400	9	295	9	185
Median	2	80	2	60	1	19
Mean	2.6	139.1	2.3	73.0	1.9	26.7
SD	2.1	180.1	1.6	56.8	1.2	26.5
Valid <i>n</i>	564	541	886	841	523	494
Missing	858	881	536	581	899	928

Item 7. Current Overall Computer Expertise

	Don't use	Beginner	Intermediate	Advanced	Expert	Mean	SD	<i>n</i>
Your current expertise as a computer user	.1	3.9	47.0	36.6	12.3	2.6	.8	1380

Item 8. Current Abilities

	Never tried	Beginner	Intermed.	Advanced	Expert	Mean	SD	<i>n</i>
Set up a personal computer	9.0	11.8	36.8	29.0	13.5	2.3	1.1	1404
Connect a computer to a network	17.4	17.6	35.1	20.6	9.3	1.9	1.2	1401
Make informed decisions about purchasing hardware/software	5.2	18.3	36.9	28.4	11.1	2.2	1.0	1400
Create a website	20.1	28.6	27.4	16.3	7.7	1.6	1.2	1403
Use basic operating system features	3.6	12.3	34.7	30.8	18.6	2.5	1.0	1390
Use word-processor to create docs with text and illustrations	2.6	5.1	21.8	42.5	28.1	2.9	1.0	1401
Use graphics or art package to create illustrations, slides, images	11.5	18.1	31.4	26.3	12.8	2.1	1.2	1394
Use Audio/Video package to create or enhance	34.1	24.7	24.9	11.5	4.8	1.3	1.2	1392
Use computer to find scholarly information and resources	.3	3.0	22.1	45.6	29.0	3.0	.8	1400
Critically evaluate information from the Internet and other sources	1.2	4.5	24.0	42.4	27.9	2.9	.9	1389
Use computer to communicate with others	.0	.9	17.5	49.7	31.9	3.1	.7	1398
Use spreadsheet for computations create charts and graphs	8.8	16.2	28.1	28.4	18.5	2.3	1.2	1393
Use database system to set up and access information	22.5	27.1	28.9	15.3	6.2	1.6	1.2	1389
Use instructional materials to learn how to use new apps or features	9.2	20.3	37.3	22.8	10.3	2.0	1.1	1363
Other (specify)	17.7	20.3	19.0	21.5	21.5	2.1	1.4	79

Item 8. Future Abilities

	Never tried	Beginner	Intermed.	Advanced	Expert	Mean	SD	<i>n</i>
Set up a personal computer	3.8	6.8	34.2	37.7	17.6	2.6	1.0	1224
Connect a computer to a network	8.7	9.6	34.2	34.2	13.3	2.3	1.1	1224
Make informed decisions about purchasing hardware/software	1.7	6.8	32.9	43.4	15.2	2.6	.9	1214
Create a website	3.7	8.6	32.9	40.2	14.6	2.5	1.0	1241
Use basic operating system features	2.2	4.8	27.0	42.2	23.8	2.8	.9	1198
Use word-processor to create docs with text and illustrations	1.0	2.0	12.7	45.8	38.5	3.2	.8	1222
Use graphics or art package to create illustrations, slides, images	2.9	6.2	24.8	43.3	22.8	2.8	1.0	1224
Use Audio/Video package to create or enhance	8.9	15.7	31.4	31.0	13.0	2.2	1.1	1218
Use computer to find scholarly information and resources	.1	.5	10.5	42.3	46.7	3.3	.7	1221
Critically evaluate information from the Internet and other sources	.6	1.1	14.3	44.1	40.0	3.2	.8	1209
Use computer to communicate with others	.1	.4	10.9	48.0	40.6	3.3	.7	1213
Use spreadsheet for computations create charts and graphs	3.3	6.8	23.3	39.3	27.4	2.8	1.0	1221
Use database system to set up and access information	7.4	14.9	32.7	31.3	13.7	2.3	1.1	1223
Use instructional materials to learn how to use new apps or features	4.2	8.8	36.3	34.2	16.5	2.5	1.0	1195
Other (specify)	5.5	2.8	18.3	41.3	32.1	2.9	1.1	109

Items 10a and 10b. Laptop ownership and laptop wireless access

	Laptop ownership status		All cases
	Yes <i>n</i> = 1114	No <i>n</i> = 299	<i>n</i> = 1413
	78.8	21.2	100.0
Wireless access via laptop			
Yes	71.2		56.1
No	25.5		20.1
Unsure	1.5		1.2
No response or <i>N/A</i>	1.8		22.6

Items 10d and 10e. Laptop toting

	Never	Seldom	Sometimes	Usually	Always	Mean	SD	<i>n</i>
Take a laptop to class	41.0	13.7	20.2	9.5	15.6	1.4	1.5	1361
If more classrooms had wireless would you take laptop	18.1	13.4	30.0	17.6	21.0	2.1	1.4	1301

Item 11. Applications and Activities to support instruction

	Never	1/month	Few x/mo	Few x/wk	Every day	Mean	SD	<i>n</i>
A laptop computer	22.7	14.4	12.6	17.5	32.8	2.2	1.6	1392
A desktop computer	14.3	4.8	8.6	18.3	53.9	2.9	1.5	1387
A tablet PC	94.0	2.5	.8	1.2	1.5	.1	.6	1364
A cell phone for Web browsing	97.1	1.0	1.2	.4	.3	.1	.4	1388
A cell phone for text messaging	91.9	3.5	1.9	1.4	1.2	.2	.6	1385
A digital camera	53.5	24.5	15.7	5.2	1.2	.8	1.0	1389
Digital music player	86.3	4.8	2.7	3.7	2.4	.3	.9	1383
Personal digital assistant	79.0	2.8	3.4	4.9	9.8	.6	1.3	1384
Word processing software	5.9	3.8	8.4	22.2	59.7	3.3	1.1	1397
Spreadsheet software	15.5	13.7	21.2	31.2	18.5	2.2	1.3	1391
Presentation software	23.5	16.4	20.0	19.1	21.0	2.0	1.5	1388
Database software	68.4	16.7	7.5	4.2	3.2	.6	1.0	1377
Web authoring software	60.6	13.3	10.4	11.8	3.9	.9	1.2	1382
Graphics software	48.5	20.2	16.6	10.8	3.8	1.0	1.2	1383
Video editing software	84.6	10.6	3.0	1.2	.6	.2	.6	1385
Audio editing software	90.9	5.4	1.7	1.7	.4	.2	.6	1380
Instant messaging software	88.4	4.4	2.5	2.0	2.7	.3	.8	1384
Peer-to-peer file sharing software	93.9	3.5	1.7	.6	.3	.1	.4	1386
Online music stores	92.5	3.9	2.5	.9	.1	.1	.5	1382
Web-based file storage	90.0	4.1	3.2	1.5	1.2	.2	.7	1376
RSS readers	96.0	1.8	.8	.7	.7	.1	.5	1377
Social/collaborative services	96.8	1.5	.9	.4	.4	.1	.4	1379
Collaborative Web editing software	92.7	3.7	1.7	1.2	.6	.1	.5	1379
Web-based journals	81.2	7.4	6.3	3.8	1.4	.4	.9	1381
AV clips	46.8	18.6	17.5	12.1	5.1	1.1	1.3	1385
Simulations	66.4	15.7	9.7	6.4	1.9	.6	1.0	1382
Email distribution list	16.2	10.8	21.6	31.6	19.8	2.3	1.3	1386
Discussion boards	52.4	14.1	14.0	13.4	6.0	1.1	1.3	1377
Video conferencing	87.9	9.1	1.9	.8	.4	.2	.5	1384
Streaming videos	78.4	12.1	5.9	2.5	1.0	.4	.8	1382
Online portfolios for class projects	86.3	5.7	4.7	2.3	.9	.3	.7	1375

Item 12. Importance of online course materials

	Not impt	Somewhat	Very	Extremely	Mean	SD	<i>n</i>
Course syllabi	6.7	16.0	29.1	48.2	2.2	.9	1397
Lecture notes	27.0	27.8	20.9	24.3	1.4	1.1	1390
Video archives of lectures	65.5	25.2	5.8	3.5	.5	.8	1385
Problem sets or exercises	19.9	20.8	29.4	29.9	1.7	1.1	1385
Class discussion boards	24.6	39.1	23.5	12.8	1.2	1.0	1374
Class Web logs	56.9	30.0	9.1	4.0	.6	.8	1343
Simulations or visualizations	42.9	29.7	19.6	7.8	.9	1.0	1362
Links to discipline-related sites	14.7	35.3	32.3	17.6	1.5	.9	1379
Course reserves and other archived materials	11.4	23.8	33.1	31.7	1.9	1.0	1387
Area to share files	45.5	31.9	14.6	7.9	.8	.9	1366
Opportunity to get feedback from classmates	27.5	39.1	22.8	10.6	1.2	.9	1376
Quizzes or surveys	31.8	33.9	23.4	10.9	1.1	1.0	1379
Means to provide anonymous feedback	22.8	38.8	22.8	15.6	1.3	1.0	1378
Links to departmental research opportunities	21.2	36.0	28.2	14.7	1.4	1.0	1371
Other (specify)	50.9	14.5	10.9	23.6	1.1	1.3	55

Items 13a-d. Multimedia classrooms and collaboratories.

	Made use of multimedia					Mean	SD	Valid <i>n</i>	Missing
	Never	Seldom	Sometimes	Usually	Always				
Taught class in multimedia classroom									
Yes	7.6	9.6	21.5	23.3	38.0	2.7	1.3	781	24
No	31.5	13.0	18.5	11.1	25.9	1.9	1.6	54	541
Taught class in collaboratory									
Yes	9.3	7.0	20.6	24.6	38.6	2.8	1.3	399	37
No	8.9	12.6	21.7	21.0	35.9	2.6	1.3	429	521
Taught in either multimedia or collab									
Yes	9.2	9.8	21.2	22.6	37.2	2.7	1.3	838	57
No	.0	.0	.0	.0	.0	.	.	0	509

Item 13a-d. Multimedia classrooms and collaboratories: Tech Support

	How often request for tech support is met					Mean	SD	Valid <i>n</i>	Missing
	Never	Seldom	Sometimes	Usually	Always				
Taught class in multimedia classroom									
Yes	4.0	3.4	19.0	31.8	41.8	3.0	1.1	620	185
No	32.1	8.0	9.3	21.0	29.6	2.1	1.7	162	433
Taught class in collaboratory									
Yes	2.5	2.5	14.7	29.9	50.4	3.2	1.0	361	75
No	16.0	6.3	18.9	29.6	29.1	2.5	1.4	412	538
Taught in <u>either</u> multimedia or collab	3.7	3.8	18.1	31.6	42.8	3.1	1.0	680	215

Items 14a and 14b. Primary email service and mail-reader applications

Primary email service	Mail Reader Applications Used								<i>n</i> Cases	<i>n</i> Responses
	Mozilla	Not sure	MyUW	other	Outlook/ Express	PCPine	Pine	other Web mail		
UW central email account	15.7	.3	75.3	16.7	40.5	8.7	34.9	21.0	1073	2286
UW department email account	21.8	1.5	25.4	43.1	24.9	10.7	27.9	20.8	197	347
Commercial account	14.2	1.8	52.2	16.8	38.9	2.7	9.7	51.3	113	212
Not sure	66.7	.0	83.3	16.7	66.7	.0	16.7	50.0	6	18

Item 15. Opinions about UW educational technology practices

	Disagree Strongly	Disagree Somewhat	Neutral	Agree Somewhat	Agree Strongly	Mean	SD	<i>n</i>
UW should require incoming students to take basic technology skills course designed	19.8	15.9	24.3	26.1	14.0	3.0	1.3	1369
UW should develop and implement Technology Code of Conduct	7.1	8.9	38.0	30.1	16.0	3.4	1.1	1354
UW should provide students more ops to use technology in coursework	1.8	2.6	23.1	42.2	30.2	4.0	.9	1363
UW should require all courses to have course website	26.7	18.9	21.5	19.3	13.6	2.7	1.4	1370
UW should inform students of the tech that will be required in each course	2.6	3.8	19.5	39.8	34.4	4.0	1.0	1357
UW should encourage instructors to use Web-based tools for student discussion	7.7	10.2	33.0	35.8	13.3	3.4	1.1	1364
UW should encourage instructors to use online quizzes and exams	25.1	23.0	34.9	12.9	4.1	2.5	1.1	1368
UW should encourage instructors to accept course assignments electronically	21.1	16.2	26.5	24.8	11.5	2.9	1.3	1367
UW should provide students with guidance in building online portfolios	5.7	7.3	39.6	32.8	14.6	3.4	1.0	1365
UW should evaluate use of technology by instructors	16.6	13.4	34.7	26.1	9.2	3.0	1.2	1360

Item 16. Efficacy with educational technology

	Never	Seldom	Sometimes	Usually	Always	Mean	SD	<i>n</i>
I am comfortable learning to use tech needed for UW teaching or research	1.0	4.5	17.4	43.1	34.1	3.0	.9	1362
I can easily get access to a computer when I need it	.1	.9	5.3	26.3	67.3	3.6	.6	1367
Students have adequate skills to use required tech	.5	3.1	26.5	51.3	18.5	2.8	.8	1344
Not used tech because too complicated to incorporate	45.8	22.6	21.2	7.9	2.5	1.0	1.1	1322
Not used tech because too time-consuming to incorporate	35.6	16.5	28.4	14.3	5.3	1.4	1.2	1326
I can easily find and use online library resources	.8	2.0	12.9	36.9	47.4	3.3	.8	1355
I provide adequate help in using technologies to complete assigned coursework	7.0	11.0	21.9	38.6	21.5	2.6	1.1	1317
My courses prepare students to use technology in my career field	16.3	17.2	28.8	23.7	14.0	2.0	1.3	1326
My use of educational technologies improves student learning	5.9	6.8	31.1	36.8	19.3	2.6	1.1	1319

Item 17. Modes of teaching about required technology

	Never	Sometimes	Always	Mean	SD	<i>n</i>
In-class demonstration	25.2	36.5	38.3	1.1	.8	747
Verbal instruction	17.9	40.4	41.7	1.2	.7	736
Written instruction	20.5	39.3	40.2	1.2	.8	733
Step-by-step instruction in a computer lab	45.3	30.6	24.1	.8	.8	735
TA In-class instruction	44.8	33.5	21.7	.8	.8	511
Consultant In-class instruction	82.7	14.6	2.8	.2	.5	721
Consultant in computer lab	78.5	17.6	4.0	.3	.5	729
Online written documentation	32.8	47.3	19.8	.9	.7	731
Online video tutorials	80.1	17.0	2.9	.2	.5	722
UW campus workshop	72.6	23.5	3.9	.3	.5	720
Other	64.0	17.4	18.6	.5	.8	86

Item 18. Impact of seminar classroom hardware on learning

	Detracts	No impact	Enhances	N/A	Mean	SD	<i>n</i>
Overhead projector	4.1	12.9	79.9	3.1	.8	.5	1308
Computer with projection	1.1	8.4	84.7	5.9	.9	.4	1271
TV with VCR	3.6	26.2	60.1	10.1	.6	.6	1204
Ethernet access for student laptops	21.0	39.0	30.3	9.7	.1	.7	1039
Wireless access for student laptops	22.9	32.6	35.6	8.8	.1	.8	1062
A desktop workstation for each student	20.4	33.6	24.0	21.9	.0	.8	1028
Desktop workstations for small groups	10.3	34.7	32.6	22.3	.3	.7	1015
A laptop for each student	19.1	38.5	31.3	11.0	.1	.7	977
Laptop computers for small groups	12.5	39.1	37.4	11.1	.3	.7	974
Electronic white board	4.0	31.4	39.1	25.6	.5	.6	958
Other	5.4	23.1	29.2	42.3	.4	.7	75

Educational Technology Survey 2005: Students Descriptive Statistics Tables

Statistics in the following tables are response frequencies (%) unless otherwise noted.

Response Mode

	Web	Paper	Total
<i>n</i>	746	241	987
%	75.6	24.1	100.0

Class by Mode

	Web	Paper	All
Freshman	11.5	7.1	10.4
Sophomore	9.7	8.3	9.4
Junior	24.1	22.8	23.8
Senior	21.4	25.3	22.4
Masters program	16.3	14.9	16.0
Doctoral program	13.3	12.4	13.1
Other	3.6	9.1	5.0
Valid <i>n</i>	742	241	983
Missing	4	0	4

Residence & Broadband by Mode

	Web				Paper			
	UW housing/ RH	Off-campus w/ parents	Off-campus other*	Total	UW housing/ RH	Off-campus w/ parents	Off-campus other	Total
Broadband access in residence								
Yes	89.1	76.7	.0	78.9	85.7	48.1	78.5	75.6
No	2.3	21.9	.0	18.5	9.5	51.9	21.5	23.9
DK	8.6	1.3	.0	2.6	4.8	.0	.0	.4
Valid <i>n</i>	128	597	0	725	21	27	186	234
Missing	4	9	0	21	1	2	2	7
Residence %	17.7	82.3	0	100.0	9.0	11.5	79.5	100.0

Note. A coding error in the Web form caused all "off-campus other" responses to be recorded as "off-campus with parents".

Current Credit Enrollment by Mode

	Web	Paper	All
Minimum	0	0	0
Maximum	25	27	27
Mode	15	15	15
Median	14	13	14
Mean	12.8	12.5	12.8
SD	3.9	4.8	4.2
Valid <i>n</i>	717	234	951
Missing	29	7	36

Sex by Mode

	Web	Paper	All
Male	41.9	31.0	39.2
Female	58.1	69.0	60.8
Valid <i>n</i>	737	239	976
Missing	9	2	11

Age by Mode

Age	Web	Paper	All
Minimum	14	14	14
Maximum	75	60	75
Mode	21	21	21
Median	22.0	24.0	23.0
Mean	25.5	27.0	25.8
SD	8.0	8.8	8.2
Valid <i>n</i>	712	233	945
Missing	34	8	42

Ethnicities by Mode

		Web	Paper	All
African American	% of Responses	2.2	1.3	2.0
	% of Cases	2.1	1.2	1.8
Asian American	% of Responses	21.0	22.1	21.3
	% of Cases	19.4	20.3	19.6
Hispanic/Latin American	% of Responses	3.9	2.1	3.5
	% of Cases	3.6	2.0	3.2
International student	% of Responses	8.2	8.1	8.2
	% of Cases	7.6	7.4	7.5
Native American or Alaskan Native	% of Responses	1.7	1.7	1.7
	% of Cases	1.5	1.6	1.5
Other ethnicity	% of Responses	5.1	5.5	5.2
	% of Cases	4.8	5.1	4.8
Native Hawaiian/Pacific Islander American	% of Responses	1.9	1.7	1.9
	% of Cases	1.8	1.6	1.7
White American	% of Responses	64.0	66.4	64.6
	% of Cases	59.3	60.9	59.7
Total	Responses <i>n</i>	778	256	1034
	Cases <i>n</i>	720	235	955
	Responses: Valid %	108.1	108.9	108.3
	Cases: Valid %	92.5	91.8	92.4

Item 7. Current Overall Computer Expertise

	Don't use (0)	Beginner (1)	Intermediate (2)	Advanced (3)	Expert (4)	Mean	SD	Valid <i>n</i>
Your current expertise as a computer user	.0	2.7	48.2	38.7	10.4	2.6	.7	956

Item 8. Current Abilities

	Never tried (0)	Beginner (1)	Intermediate (2)	Advanced (3)	Expert (4)	Mean	SD	<i>n</i>
Set up a personal computer	11.2	11.3	33.4	28.4	15.7	2.3	1.2	975
Connect a computer to a network	13.8	18.0	35.0	23.2	10.0	2.0	1.2	973
Make informed decisions about purchasing hardware/software	8.2	23.8	33.3	23.8	10.9	2.1	1.1	966
Create a website	30.9	31.0	22.0	11.9	4.2	1.3	1.1	970
Use basic operating system features	1.8	12.5	32.1	33.8	19.9	2.6	1.0	962
Use word-processor to create docs with text and illustrations	.5	3.8	23.3	42.3	30.1	3.0	.9	970
Use graphics or art package to create illustrations, slides, images	5.9	19.3	34.2	28.3	12.3	2.2	1.1	968
Use Audio/Video package to create or enhance	25.9	26.7	27.8	14.4	5.3	1.5	1.2	968
Use computer to find scholarly information and resources	.5	6.8	29.6	41.6	21.5	2.8	.9	971
Critically evaluate information from the Internet and other sources	1.2	7.3	32.6	38.5	20.2	2.7	.9	968
Use computer to communicate with others	.2	3.3	18.3	42.0	36.2	3.1	.8	969
Use spreadsheet for computations create charts and graphs	4.0	18.3	32.1	30.2	15.4	2.3	1.1	968
Use database system to set up and access information	18.2	29.9	31.9	14.8	5.3	1.6	1.1	968
Use instructional materials to learn how to use new apps or features	7.6	17.3	37.6	25.7	11.8	2.2	1.1	964
Other (specify)	21.7	18.8	24.6	17.4	17.4	1.9	1.4	69

Item 8. Future Abilities

	Never tried (0)	Beginner (1)	Intermediate (2)	Advanced (3)	Expert (4)	Mean	SD	<i>n</i>
Set up a personal computer	4.6	6.3	28.9	37.0	23.2	2.7	1.0	900
Connect a computer to a network	5.9	7.7	29.9	38.6	17.9	2.5	1.1	894
Make informed decisions about purchasing hardware/software	2.4	7.1	29.4	40.2	20.9	2.7	1.0	887
Create a website	10.1	15.9	33.2	26.6	14.2	2.2	1.2	892
Use basic operating system features	.6	5.4	22.8	40.9	30.3	3.0	.9	887
Use word-processor to create docs with text and illustrations	.3	1.1	12.1	44.6	41.8	3.3	.7	890
Use graphics or art package to create illustrations, slides, images	1.5	7.3	24.4	41.1	25.8	2.8	.9	894
Use Audio/Video package to create or enhance	7.7	14.0	30.8	31.1	16.4	2.3	1.1	894
Use computer to find scholarly information and resources	.3	.8	11.7	42.0	45.2	3.3	.7	892
Critically evaluate information from the Internet and other sources	.8	1.5	15.3	45.0	37.5	3.2	.8	891
Use computer to communicate with others	.2	.9	10.3	41.6	46.9	3.3	.7	891
Use spreadsheet for computations create charts and graphs	1.2	4.3	22.4	41.4	30.8	3.0	.9	894
Use database system to set up and access information	5.7	11.7	29.9	35.0	17.7	2.5	1.1	891
Use instructional materials to learn how to use new apps or features	2.8	6.1	31.3	39.1	20.7	2.7	1.0	889
Other (specify)	8.0	.9	11.6	34.8	44.6	3.1	1.2	112

Items 9a and 9b. Laptop ownership and laptop wireless access

	Laptop ownership status		All cases
	Yes <i>n</i> = 658	No <i>n</i> = 316	<i>n</i> = 974
	67.6	32.4	100.0
Wireless access via laptop			
Yes	81.8		55.2
No	16.0		10.8
Unsure	1.2		.8
No response or <i>N/A</i>	1.1		33.1

Items 9d and 9e. Laptop toting

	Never (0)	Seldom (1)	Sometimes (2)	Usually (3)	Always (4)	Mean	SD	<i>n</i>
Take a laptop to class	60.9	14.1	14.8	4.7	5.4	.8	1.2	891
If more classrooms had wireless would you take laptop	29.5	13.8	25.6	16.7	14.5	1.7	1.4	876

Item 10. Activities for Coursework or Research

	Never (0)	1/month (1)	Few x/mo (2)	Few x/wk (3)	Every day (4)	Mean	SD	<i>n</i>
A laptop computer	24.1	8.5	9.4	16.9	41.1	2.4	1.6	957
A desktop computer	5.4	5.1	12.3	28.5	48.6	3.1	1.1	957
A tablet PC	90.6	2.7	3.2	2.0	1.5	.2	.7	935
A cell phone for Web browsing	91.6	4.7	2.1	.4	1.1	.1	.6	958
A cell phone for text messaging	77.2	7.6	6.2	4.8	4.2	.5	1.1	953
A digital camera	58.5	18.0	14.9	6.9	1.7	.8	1.0	954
Digital music player	78.7	5.8	4.0	3.9	7.6	.6	1.2	950
Personal digital assistant	82.8	3.1	3.6	4.4	6.1	.5	1.1	954
Word processing software	.9	1.5	14.8	44.7	38.1	3.2	.8	960
Spreadsheet software	17.8	23.4	26.2	21.6	11.1	1.8	1.3	955
Presentation software	21.5	37.1	27.7	10.4	3.2	1.4	1.0	957
Database software	67.9	17.2	8.5	4.5	1.8	.5	1.0	951
Web authoring software	76.7	13.6	5.6	3.4	.7	.4	.8	948
Graphics software	50.7	24.4	13.6	8.4	2.8	.9	1.1	949
Video editing software	87.4	8.8	2.7	.9	.1	.2	.5	954
Audio editing software	91.3	4.3	3.2	.9	.3	.1	.5	950
Instant messaging software	57.2	12.0	12.6	8.4	9.9	1.0	1.4	953
Peer-to-peer software	82.8	7.9	4.3	3.0	2.0	.3	.9	954
Online music stores	89.6	4.4	2.7	1.9	1.4	.2	.7	955
Web-based file storage	83.0	6.6	5.8	2.7	1.9	.3	.9	946
RSS readers	93.7	2.7	1.7	.6	1.3	.1	.6	941
Social/collaborative services	85.7	6.1	4.0	2.6	1.5	.3	.8	945
Collaborative Web editing software	89.8	4.0	3.6	1.9	.6	.2	.6	945
Web-based journals	82.3	5.8	6.6	3.6	1.7	.4	.9	950

Item 10. Activities for Work or Personal

	Never (0)	1/month (1)	Few x/mo (2)	Few x/wk (3)	Every day (4)	Mean	SD	<i>n</i>
A laptop computer	23.3	6.8	7.8	10.3	51.8	2.6	1.7	910
A desktop computer	9.8	4.9	9.0	18.0	58.3	3.1	1.3	912
A tablet PC	90.0	3.7	2.5	1.4	2.5	.2	.8	886
A cell phone for Web browsing	84.5	7.1	4.2	2.4	1.8	.3	.8	906
A cell phone for text messaging	46.4	11.6	15.0	13.1	14.0	1.4	1.5	909
A digital camera	22.5	13.7	37.0	22.0	4.7	1.7	1.2	910
Digital music player	46.0	4.7	6.7	14.8	27.9	1.7	1.8	915
Personal digital assistant	77.4	3.4	4.9	5.0	9.4	.7	1.3	906
Word processing software	5.7	12.5	24.7	27.3	29.8	2.6	1.2	915
Spreadsheet software	28.5	23.3	21.6	14.5	12.0	1.6	1.4	908
Presentation software	48.1	28.1	13.5	6.3	3.9	.9	1.1	916
Database software	68.8	13.1	8.4	6.0	3.6	.6	1.1	914
Web authoring software	72.3	13.4	9.1	3.8	1.4	.5	.9	913
Graphics software	35.9	25.6	25.4	9.6	3.5	1.2	1.1	907
Video editing software	79.8	11.7	5.4	2.2	.9	.3	.8	908
Audio editing software	81.5	9.4	6.2	1.8	1.1	.3	.8	905
Instant messaging software	32.4	8.8	11.1	13.6	34.0	2.1	1.7	916
Peer-to-peer file sharing software	59.5	8.5	12.0	11.9	8.0	1.0	1.4	913
Online music stores	66.6	11.9	10.5	5.8	5.3	.7	1.2	918
Web-based file storage	70.8	10.5	11.9	3.8	3.1	.6	1.0	906
RSS readers	90.6	3.3	2.5	1.6	2.0	.2	.7	912
Social/collaborative services	73.6	6.7	6.5	6.7	6.4	.7	1.2	907
Collaborative Web editing software	88.6	3.1	5.3	1.9	1.1	.2	.7	905
Web-based journals	66.2	8.8	9.4	7.0	8.6	.8	1.3	914

Item 11. Preferred educational technology in courses

	Yes
Want A/V clips, animation, or slides	59.5
Want Email distribution list	86.5
Want Instant messaging software	20.9
Want Other (specify)	5.2
Want PowerPoint presentations	69.1
Want Online portfolios for class projects or your work	51.6
Want Computer simulations	44.8
Want Video conferencing	15.8
Want Streaming videos	38.1
<i>n</i> giving at least one 'Yes' response	948
Total number of Responses	3863

Item 12. Importance of online materials

	Not imp (0)	Somewhat (1)	Very (2)	Extremely (3)	Mean	SD	<i>n</i>
Course syllabi	2.4	11.8	27.1	58.7	2.4	.8	958
Lecture notes	3.3	13.5	30.2	53.0	2.3	.8	958
Video archives of lectures	31.5	32.7	18.2	17.6	1.2	1.1	951
Problem sets or exercises	5.7	17.6	32.7	43.9	2.1	.9	958
Class discussion boards	14.6	36.5	26.8	22.1	1.6	1.0	954
Class Web logs	30.7	37.4	20.7	11.2	1.1	1.0	946
Simulations or visualizations	20.5	37.9	27.1	14.4	1.4	1.0	954
Links to discipline-related sites	13.9	36.5	32.6	17.0	1.5	.9	958
Course reserves and other archived materials	4.4	21.3	36.1	38.2	2.1	.9	955
Area to share files	28.7	37.9	21.3	12.1	1.2	1.0	952
Opportunity to get fdbk from classmates on coursework	20.1	40.0	26.3	13.6	1.3	.9	955
Quizzes or surveys	15.3	34.2	28.7	21.8	1.6	1.0	949
Means to provide anonymous fdbk to instructor	13.7	31.4	32.7	22.3	1.6	1.0	952
Links to departmental research opportunities	10.7	33.9	31.9	23.5	1.7	.9	956
Other (specify)	21.8	10.3	17.2	50.6	2.0	1.2	87

Item 13. Use of campus computing resources

	Use GA Labs	Use HS Lab	Use Dept lab	Use UW Libraries	Use Access+	Use campus wireless
<i>n</i> Yes	562	157	449	594	134	363
Mean number of Reasons	5.3	4.6	5.4	4.6	4.4	4.4
Reason	%	%	%	%	%	%
Environment is conducive for independent work	65.8	59.2	63.3	60.1	53.7	71.9
Technical support is available	27.2	21.7	27.2	23.1	22.4	9.4
Location is convenient	71.4	70.7	71.0	77.8	72.4	76.3
Hours are convenient	59.8	40.1	50.3	60.1	53.7	62.3
Environment is conducive for collaborative work	43.2	35.7	54.1	30.0	27.6	45.2
Has software I dont have access to elsewhere	40.9	45.2	56.8	28.3	29.9	12.9
Has hardware I dont have access to elsewhere	27.8	21.7	29.6	16.5	22.4	9.1
Has print services I dont have access to elsewhere	33.6	22.9	37.6	27.4	26.1	10.2
Ability to save to CD or DVD	21.0	21.0	20.0	13.5	15.7	13.5
To access online course materials	59.4	52.9	55.5	53.2	49.3	56.5
Provides network speed/stability I dont have access to elsewhere	36.1	28.7	33.0	32.8	29.1	30.3
Provides a good atmosphere	41.8	37.6	45.7	41.1	32.8	41.9

Item 14a-c. Multimedia classrooms and collaboratories

		Instructor made use of multimedia					Mean	SD	<i>n</i>
		Never (0)	Seldom (1)	Sometimes (2)	Usually (3)	Always (4)			
Attended class in multimedia classroom	Yes	2.0	4.6	19.5	35.7	38.2	3.0	1.0	589
	No	34.6	7.1	19.7	16.5	22.0	1.8	1.6	127
Attended class in collaboratory	Yes	2.2	6.1	20.7	35.3	35.8	3.0	1.0	411
	No	15.7	3.3	18.7	27.8	34.4	2.6	1.4	299
Attended class in EITHER multimedia or collaboratory	Yes	2.4	5.4	20.2	34.2	37.7	3.0	1.0	663
	No	74.1	.0	13.0	7.4	5.6	.7	1.3	54

Items 15a and 15b. Primary email service and mail-reader applications

Primary email service	Mail Reader Applications Used								<i>n</i> Cases	<i>n</i> Responses
	Mozilla	Not sure	MyUW	other	Outlook/ Express	PCPine	Pine	other Web mail		
UW central email account	12.6	.0	90.9	6.6	25.6	3.0	18.5	40.1	594	1172
UW department email account	27.8	.0	27.8	33.3	22.2	11.1	50.0	22.2	18	35
Commercial account	16.3	.3	52.4	10.3	32.6	.3	3.8	74.6	319	608
Not sure	45.5	.0	54.5	9.1	36.4	.0	36.4	54.5	11	26

Frequency of reading UW email (15c) by Primary email service (15a)

Primary email service	Never	1/month	Few x/mo	Few x/wk	Daily	Mean	SD	<i>n</i>
UW central email account	.2	.2	.2	7.7	91.8	3.9	.3	570
UW department email account	.0	.0	5.6	.0	94.4	3.9	.5	18
Commercial account	1.3	.3	1.3	20.3	76.8	3.7	.6	310
Not sure	9.1	.0	.0	9.1	81.8	3.5	1.2	11
Total	.7	.2	.7	11.9	86.6	3.8	.5	909

Item 16. Opinions about UW educational technology practices

	Disagree Strongly (1)	Disagree Somewhat (2)	Neutral (3)	Agree Somewhat (4)	Agree Strongly (5)	Mean	SD	<i>n</i>
UW should require incoming students to take basic technology skills course designed	15.4	17.0	25.0	26.7	15.9	3.1	1.3	941
UW should develop and implement Technology Code of Conduct	6.6	8.6	42.7	29.2	12.9	3.3	1.0	939
UW should provide students more ops to use technology in coursework	2.1	7.6	33.8	38.0	18.6	3.6	.9	938
UW should require all courses to have course website	3.7	5.1	14.1	30.2	46.9	4.1	1.1	941
UW should inform students of the tech that will be required in each course	.7	1.5	17.7	39.7	40.4	4.2	.8	939
UW should encourage instructors to use Web-based tools for student discussion & collaboration	3.4	8.5	31.1	31.8	25.2	3.7	1.0	940
UW should encourage instructors to use online quizzes and exams	14.0	21.6	32.7	19.6	12.1	2.9	1.2	940
UW should encourage instructors to accept course assignments electronically	4.4	8.9	22.2	31.3	33.2	3.8	1.1	941
UW should provide students with guidance in building online portfolios	4.0	5.5	35.5	34.9	20.0	3.6	1.0	939
UW should evaluate use of technology by instructors	5.0	8.6	39.8	32.0	14.6	3.4	1.0	938

Item 17. Efficacy with technology

	Never (0)	Seldom (1)	Sometimes (2)	Usually (3)	Always (4)	Mean	SD	<i>n</i>
I am comfortable learning to use tech needed to complete UW coursework or research	.8	2.5	13.0	43.7	39.9	3.2	.8	943
I can easily get access to a computer when I need it	.1	1.4	5.8	29.0	63.7	3.5	.7	941
I have considered dropping or not enrolling in a course because of the tech that it required	76.4	11.8	7.8	2.4	1.6	.4	.9	940
I can easily find and use online library resources	.7	3.4	20.6	42.6	32.6	3.0	.9	936
I have used online tools for study etc when they were not assigned by the instructor	9.1	13.2	28.1	26.8	22.8	2.4	1.2	940
I receive adequate help from instructors in using tech to complete assigned coursework	8.0	15.2	30.3	33.5	13.0	2.3	1.1	938
My courses prepare me to use technology in my career field	8.8	18.9	33.0	25.5	13.8	2.2	1.1	935
My instructors use of educational technologies improves my learning	5.3	10.9	37.6	33.2	12.9	2.4	1.0	936
Educational technologies are used consistently throughout the University	6.1	21.8	39.5	25.1	7.4	2.1	1.0	931

Item 18. Preferred modes of learning

	Never (0)	Sometimes (1)	Always (2)	No experience	Mean	SD	<i>n</i>
In-class demonstration helps	4.6	31.2	55.4	8.7	1.6	.6	856
Verbal instruction helps	10.0	50.6	33.8	5.6	1.3	.6	886
Written instruction helps	6.2	37.4	50.5	5.9	1.5	.6	881
Step-by-step instruction in a computer lab helps	8.7	22.9	50.4	18.1	1.5	.7	766
Online written documentation helps	8.8	41.5	36.7	13.1	1.3	.6	811
Online video tutorials helps	15.8	21.7	17.7	44.8	1.0	.8	514
UW campus workshop helps	14.5	17.0	12.4	56.1	1.0	.8	409
Other helps	20.0	36.4	40.0	3.6	1.2	.8	53

Item 19. Impact of seminar classroom hardware on learning

	Detracts (-1)	No impact (0)	Enhances (1)	No experience	Mean	SD	<i>n</i>
Overhead projector	5.7	15.4	76.2	2.6	.7	.6	921
Computer with projection	1.4	7.7	87.0	3.9	.9	.4	911
TV with VCR	4.6	24.3	60.4	10.8	.6	.6	842
Ethernet access for student laptops	10.1	19.7	31.7	38.5	.4	.7	580
Wireless access for student laptops	10.3	15.3	44.5	30.0	.5	.7	661
A desktop workstation for each student	10.9	15.8	38.5	34.8	.4	.8	614
Desktop workstations for small group collaboration	6.2	15.3	37.6	40.9	.5	.7	555
A laptop computer for each student	8.2	11.7	31.8	48.4	.5	.8	487
Laptop computers for small group collaboration	5.8	14.2	33.2	46.8	.5	.7	501
Electronic white board	3.0	10.3	31.1	55.6	.6	.6	417
Other	5.3	13.8	34.0	46.8	.5	.7	50