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E-Textbooks for Engineering Courses

Carter, David; Grochowski, Paul; Nicholls, Natsuko; Lalwani, Leena;
Samuel, Sara

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E-Textbooks for Engineering Courses

David Carter, Paul Grochowski, Leena Lalwani,
Natsuko Nicholls, Sara Samuel

Art, Architecture & Engineering Library, University of Michigan - Ann Arbor
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Abstract

Considering the cost of textbooks, we try to make e-textbooks available to students whenever possible. In Fall 2011 we provided 41 e-textbooks to 2072 students in 36 engineering classes (~8% of all engineering classes). Our survey sought to learn about student use and perceptions of the e-textbooks.

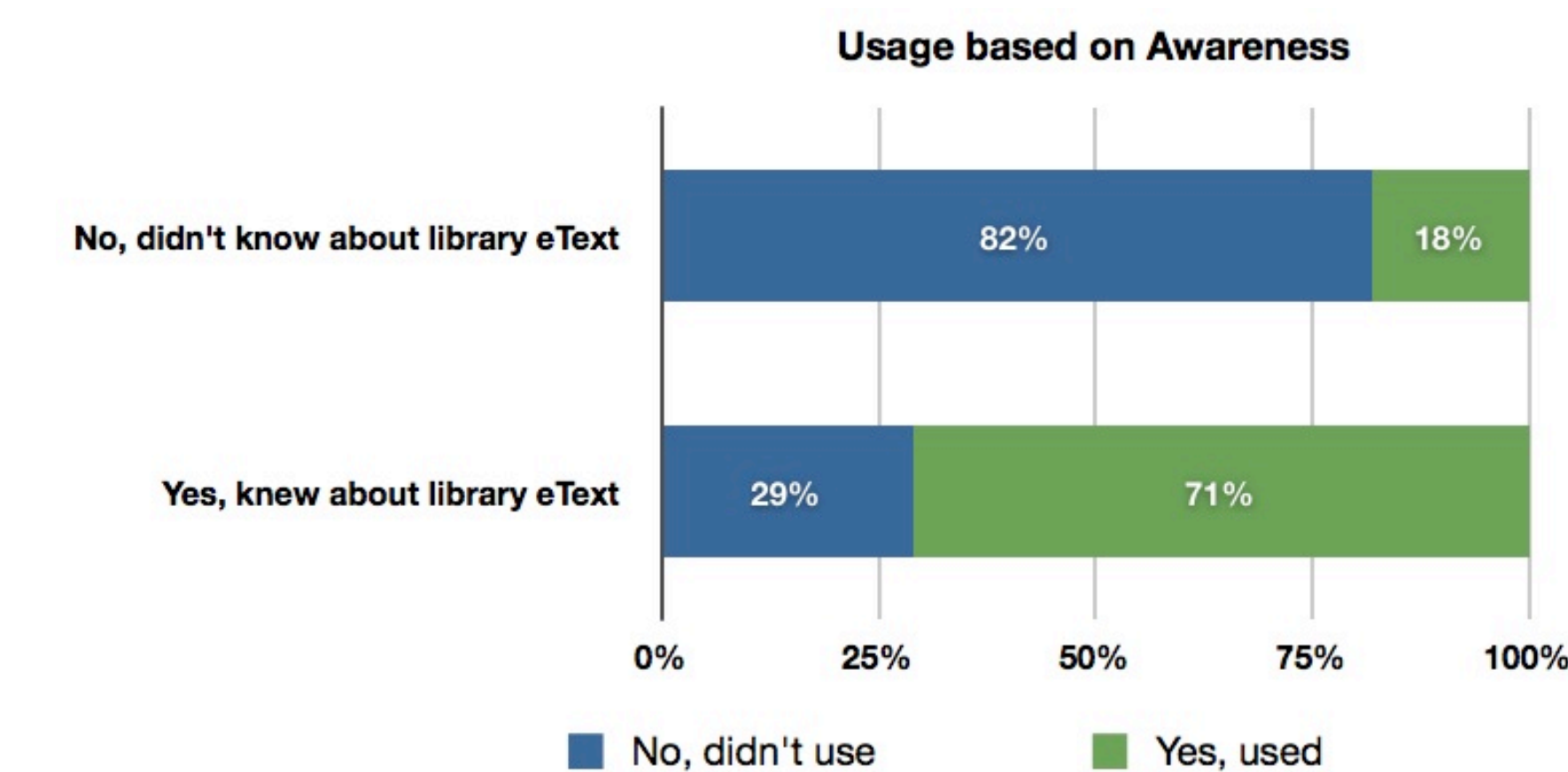
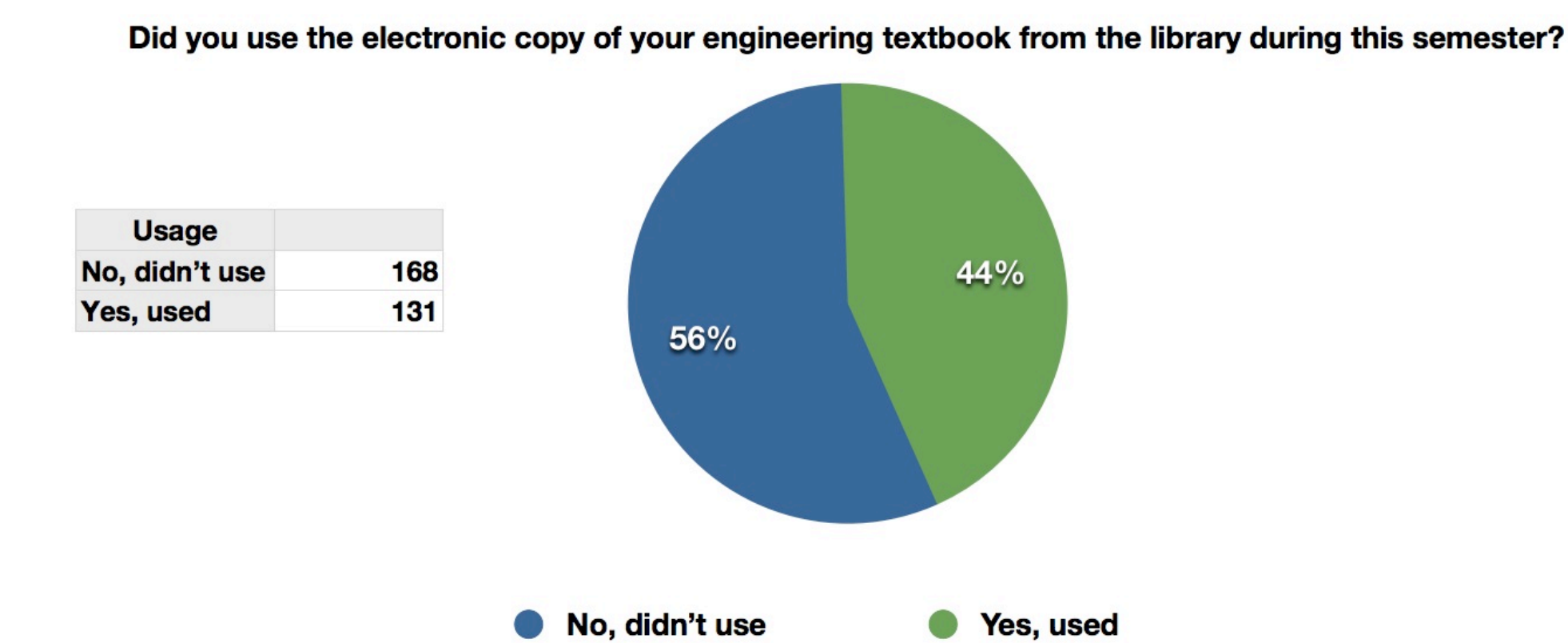
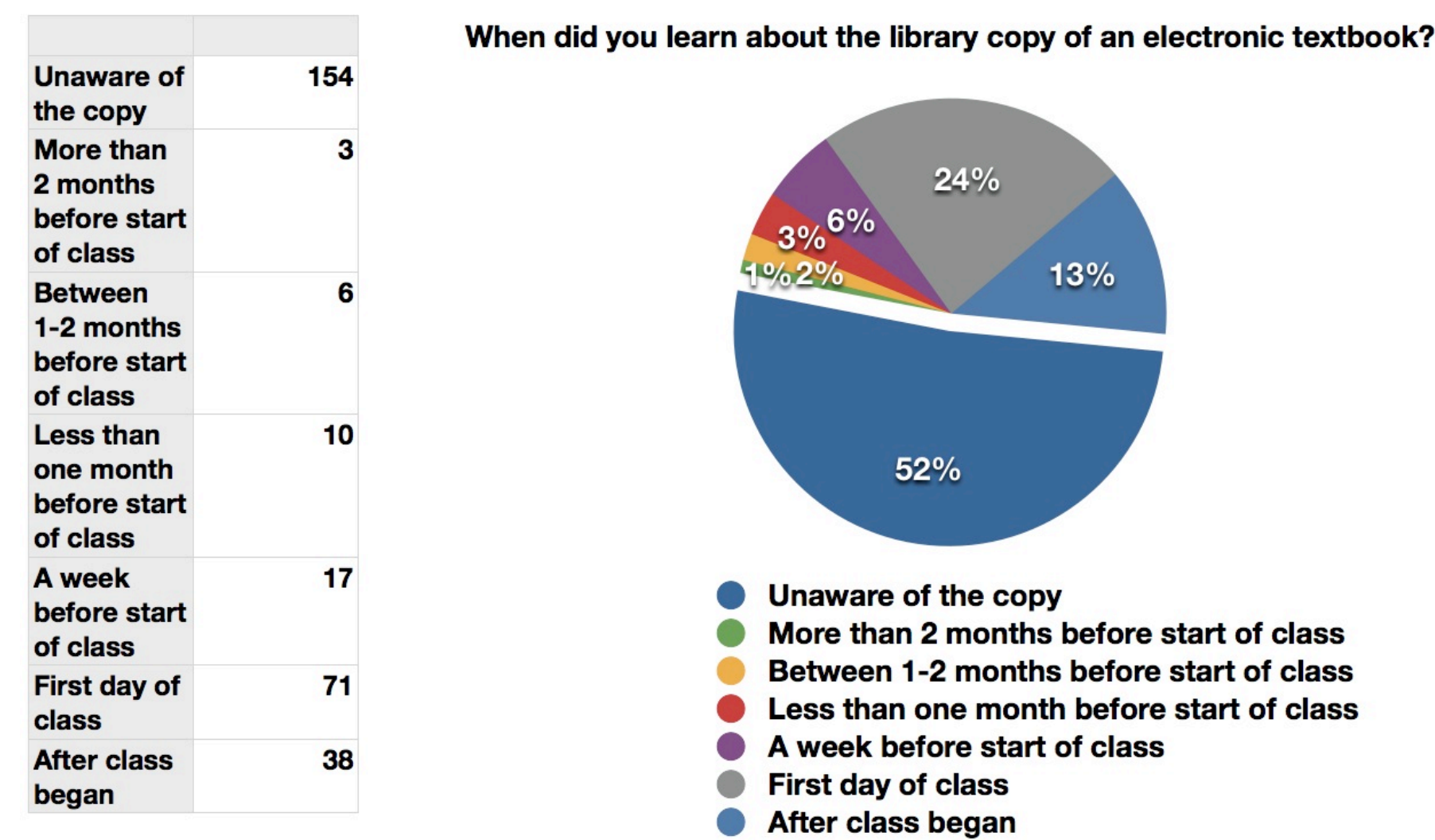
Method

Qualtrics survey with 21 questions asked about:

- Demographics
- Awareness of e-textbook
- Students' e-textbook experience

15% response rate (n=299)

"Make sure electronic textbooks are reliable. As a student, I need to be able to trust that my textbook will be available whenever I need it."



"Great as a secondary source, but I still find it easier to flip through a book to identify my topic."

Logit model for student usage of library e-textbooks

Explanatory Variable	Coefficient	Std. Err	z	p-value
Awareness of library e-textbooks	2.465	0.3048	8.09	<.01
Gender	-0.203	0.3116	-0.65	
Student status (Graduate student)	1.043	0.376	2.77	<.01
Student's cost-consciousness	0.859	0.349	2.46	<.01
Textbook format preference	0.497	0.159	3.12	<.01
Types of vendors	-0.302	0.126	-2.19	
Textbook as optional reading	0.715	0.502	1.42	
Constant	-3.139	0.755	-4.16	<.01

All tests of significance are one-tailed with robust standard errors.
Number of observations = 298 Prob>chi2 = 0.000
Log likelihood = -139.703 Pseudo R2 = 0.3164
Wald chi2 (7) = 91.20

"Please let us know that the electronic version of the textbook is available online at the beginning of the term, not at the end."

"For [my class], we have open-book exams. This means that we can take our book into the exam with us. We cannot have electronic devices, thus eliminating the possibility of using an electronic textbook during an exam."

Findings: Awareness Matters!

- 71% of students who were aware of the e-textbook used it.
- Students are more likely to use library copies of e-textbooks when they know there is a copy available.
- Students are about 51% more likely to use library electronic copies given the advanced notice.
- Providing students with information about the availability of electronic copies has the most significant impact on increasing student use of e-textbooks from the library.

Future Plans

- Publicize the e-textbooks more.
- Publicize them early.
- Work to provide links in course registration module and course management sites.
- Conduct focus groups to get more information.