

An Assessment of Two eTextbook Platforms at the University of Washington: Preliminary Report

UW Information Technology—Cara Giacomini, Wren Haaland, Henry Lyle, and Peter Wallis

November 2012

Introduction

Improving the student experience at the University of Washington (UW) is one of UW Information Technology's (UW-IT) primary goals. During the 2011-12 Academic Year, UW-IT launched several new initiatives to advance teaching and learning at the UW and to provide more resources to students. These include Canvas Learning Management system, a technology which was piloted and assessed during the 2011-2012 Academic Year and is now being deployed in several departments on all three campuses; Tegrity lecture capture and presentation recording, which has been deployed for class use in 2011-12 and is now available for use in other contexts; and eTexts, a pilot to evaluate potential uses of electronic textbooks. This report shares preliminary results from UW-IT's assessment of the latter initiative. The goal for this pilot is to ascertain the potential for eTexts to advance teaching and learning and to determine the future direction of this technology at the UW. Several textbook publishers are making digital copies of textbooks available online, and technology companies are offering readers that aggregate these digital offerings. These readers, which provide access to eTexts from multiple publishers, have varying features and business models. UW-IT is piloting the readers offered by CourseLoad and CourseSmart, two of the leading technology vendors in this market, in a selection of UW courses.

This report describes data collected for the selection of courses using eTexts in Spring Quarter and Summer Quarter 2012. It is a preliminary report based on the data that we have collected up to this point in this ongoing research project. Several additional courses are testing eTexts during the 2012-2013 Academic Year; a complete report will be available at the conclusion of the study.

Assessment Method

eText Platform Comparison

The two eText readers we assessed, CourseLoad and CourseSmart, offer a range of textbook selections from major publishers. CourseLoad's reader provides integrated collaborative features, such as allowing instructors to respond to student questions and to share their notes and annotations with the class, as well as options for students to share notes with each other. When officially adopted, CourseLoad requires that all students in a course purchase access to the eText at a discounted price, plus access fee. CourseSmart allows students to

choose to access older editions of the textbook for a lower fee (when applicable). CourseSmart does not require that all students purchase the eText and can be selected by individual students without course-wide adoption. Both readers offer only limited duration access.

Courses Surveyed

There were a total of five unique courses that participated in this research. In Spring Quarter of 2012, two courses, QSCI 483 (Statistical Inference in Applied Research II) in Seattle and ELCBUS 330 (Information Management and Analysis) in Bothell, piloted CourseSmart eTexts. In Summer of 2012, one course, MKTG 340 (Advertising), piloted a CourseSmart eText and two courses, ESS 101 (Introduction to Geological Sciences) and T WOMN 100 (Introduction to Women's Studies), piloted CourseLoad eTexts. The latter course was held in Tacoma, while the others were held at the UW, Seattle campus.

Students

Students were recruited based on their inclusion in a course that was piloting an eText for this research project. At the beginning of the quarter, the professor (or a member of the eText team) notified students in the course that they have the opportunity to participate in a pilot project in which they had free access to the eText version of the required book(s) for the course. Students, of course, could purchase the hard copy version of the required text, and were not required to use the provided eText. Towards the end of the quarter students were asked (via email) to take a short online survey about their experiences using the eText. A total of 80 students took the survey, for a response rate of 47%. Of those surveyed, 74% were undergraduates and 26% were graduate students; 63% of survey respondents were women.

Preliminary Results

Student Reading Habits

Most, but not all, students reported using the eText that was provided for their course. The proportion of students in each class who did not use the eText ranged from 0% to 46%. Some students reported that they did not complete the assigned reading and therefore did not need to use the eText. Another student stated of the eText: "I only looked at it a couple of times and then reverted to a hardcopy of the older edition."

Students were asked how much of the assigned reading they had completed. In four of the five courses, the majority of students reported completing "More than half (but not all)" or "All" of the reading. In the remaining course, 92.4% of students reported completing "Less than half" or "none" of the reading.

For most courses, students did not feel that completing all of the assigned reading was required for success in that particular course. When asked how much reading was needed, the median response was "More than half

(but not all).” The amount of assigned reading that students completed typically corresponded to the amount of reading they reported to be necessary for success in the course (Figure 1).

Figure 1: Student reading completion relative to the amount required for success. Size of bubble denotes relative frequency of response.



Preferences for eText vs. Hard Copy

Students indicated a preference for hard copy books over eTexts for many academic activities, including reading, taking notes, and highlighting (Figure 2). A preference for reading the hard copy version was mentioned in write-in responses. One student mentioned “[t]he lack of feeling of texture while reading. And it does not work as well as using a [hard copy] textbook, even if it included the highlighting functions.” Another student, however, noted in the write-in responses a preference for eTexts when it comes to highlighting: “[I like] the ability to highlight and share notes with other students. I also liked that you can see where the professor highlighted information and left a comment.”

Certain activities such as searching for a section or specific content in the text were rated as preferable when carried out in an eText (Figure 2). Students did not show a strong preference for aggregating notes or sharing notes with others. Another benefit of the eText mentioned in the write-in responses was that “[I] didn’t have to carry a textbook if I had my laptop”

Figure 2: Student preferences for eText vs. hard copy for various tasks.

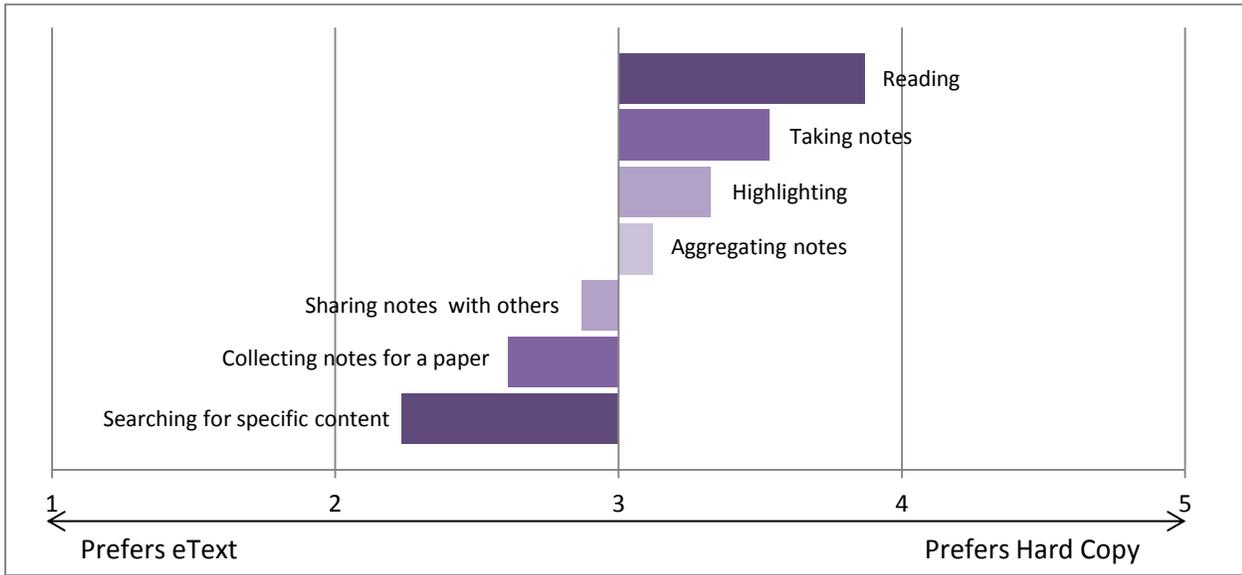
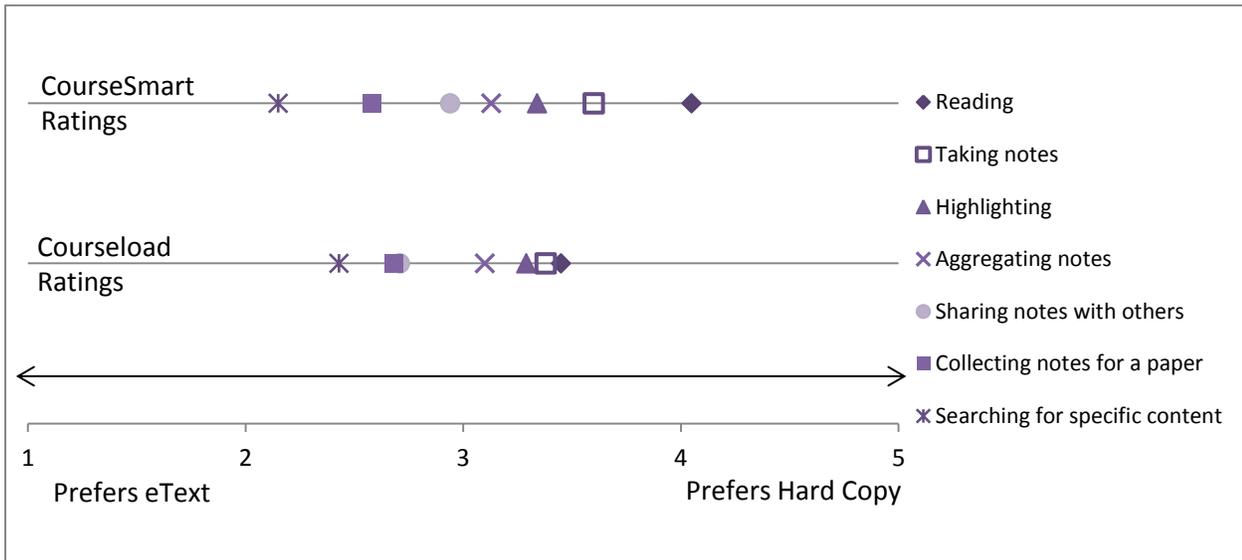


Figure 3: Student preferences for eText vs. hard copy for various tasks, by eText platform.



For both platforms, students felt similarly about what tasks were best suited to eTexts compared to hard copies (Figure 3). Students who used Courseload tended to be more neutral in their responses, compared to CourseSmart users, as evidenced by the difference in preference ratings for reading and searching for specific content. The preferences reported did not vary by class or amount of reading students completed.

Textbook Purchasing

Of the students surveyed, 70% reported that they would have purchased a hard copy textbook had the eText not been provided, ranging from a high of 80% in two classes to a low of 57.6%.

Approximately one-third of students would have purchased the textbook from the UW Bookstore if the eText was not provided (Table 1). Almost half of students (43.8%) would have purchased the textbook online. The remainder of students would have used reserve copies from the library, borrowed the textbook, or not used it at all.

Table 1: Had the eText not been provided, what would have been your most likely means of accessing the textbook for this class?

Textbook source	N	Percent
New/used/digital/rental copy purchased from UW Bookstore	27	33.8
New/used copy purchased online	35	43.8
Reserve copy from library or borrow from another student	8	10.0
Would not have used the textbook	7	8.8
Other	3	3.8

Among students who would have purchased the textbook had the eText not been provided, the proportion who would have kept the book instead of selling it varied considerably. In one class, 89% of students said they would have kept the book at the end of the quarter, compared to just 15% in another class. The majority of students would have sold the textbook. Fifty-three percent of sellers would have resold the textbook to the UW Bookstore and 47% would have sold it online.

Differences in eText Readers

Survey respondents were asked to characterize their reading style in the course on a 5-point scale for two qualities. Active reading, described in the survey question as “reading which involves highlighting, note taking, and outlining” was denoted as 5 on the scale, and passive reading, described as “reading without highlighting, note taking, and outlining” was denoted as a 1 on the scale. Similarly, respondents rated themselves as social readers (“discusses and shared readings with others; shared observations and ideas acquired through reading”) or non-social readers (“does the reading without discussing it with others”), denoted by a 5 and a 1 on the scale, respectively. On average, students placed themselves at the passive rather than active end of the scale and non-social rather than social end of the scale.

Among students who reported using the eText that was provided, users of Courseload were more likely to rate themselves as an Active or Moderately Active reader for the course in question (52.4% vs. 28.5% of CourseSmart users) (Figure 4). Users of CourseSmart were more likely to rate themselves as Passive or Moderately Passive

readers (45.2% vs. 23.8% of Courseload users). A similar percentage in each group rated themselves as Intermediate (23.8% in CourseSmart, 26.2% in CourseSmart).

CourseSmart users rated their reading habits in the pilot courses as more social (33.3% vs. 16.6%) (Figure 5). This difference may be due to the features in CourseSmart designed to facilitate social reading practices or by inherent differences in readers, regardless of the reader they used. CourseSmart readers reported their reading habits for the course as overwhelmingly non-social or moderately non-social (57.2%).

For both readers, the average self-rating tended to be higher on the scale for Active reading than for Social reading. (3.29 for active vs. 2.76 for social for CourseSmart, 2.69 vs. 2.36 for CourseSmart)

Figure 4: Passive and active reading habits of eText users

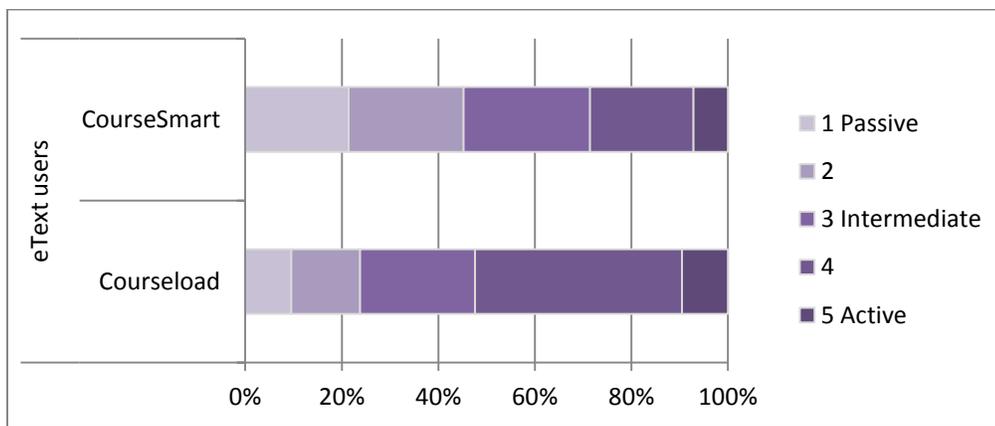
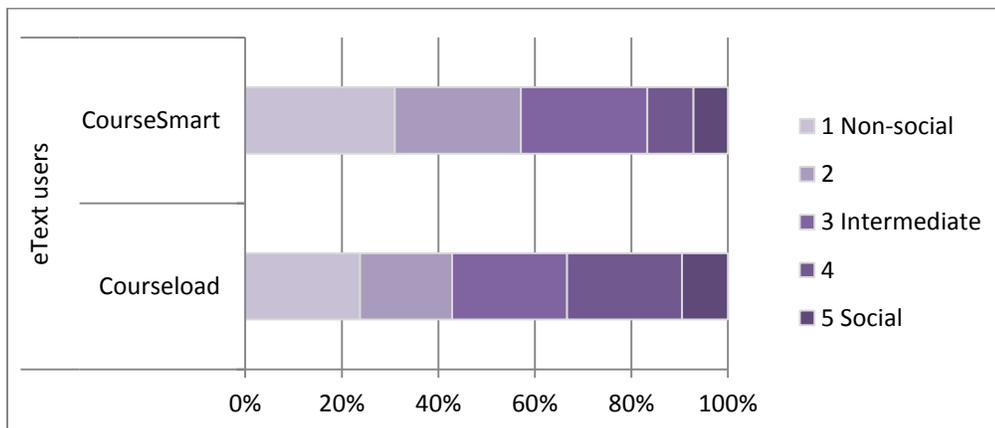


Figure 5: Non-social and social reading habits of eText users



Impacts of eTexts on Student Interaction and Grade

Most students felt that eTexts had no effect on their interaction with classmates (76.2% for Courseload, 83.3% for CourseSmart) (Figure 6) or their interaction with the professor (85.7% for Courseload, 85.7% for CourseSmart) (Figure 7).

Figure 6. eText effect on classmate interaction

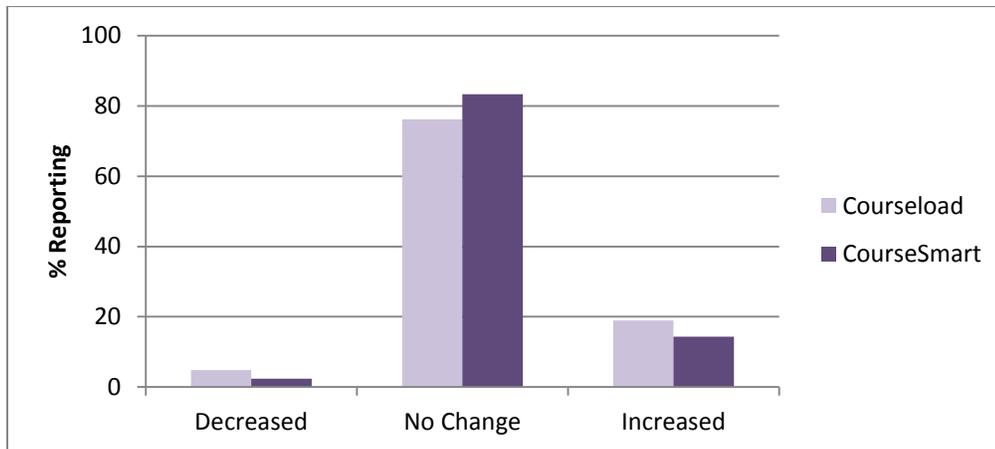
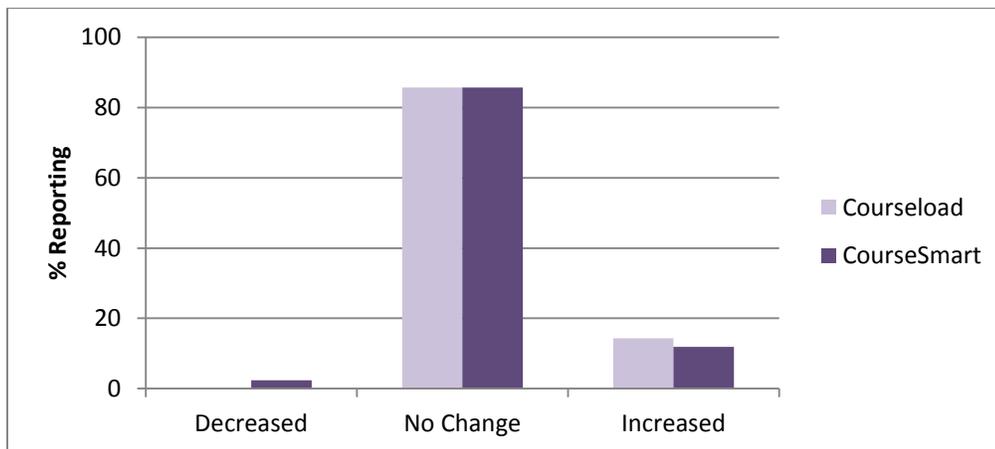


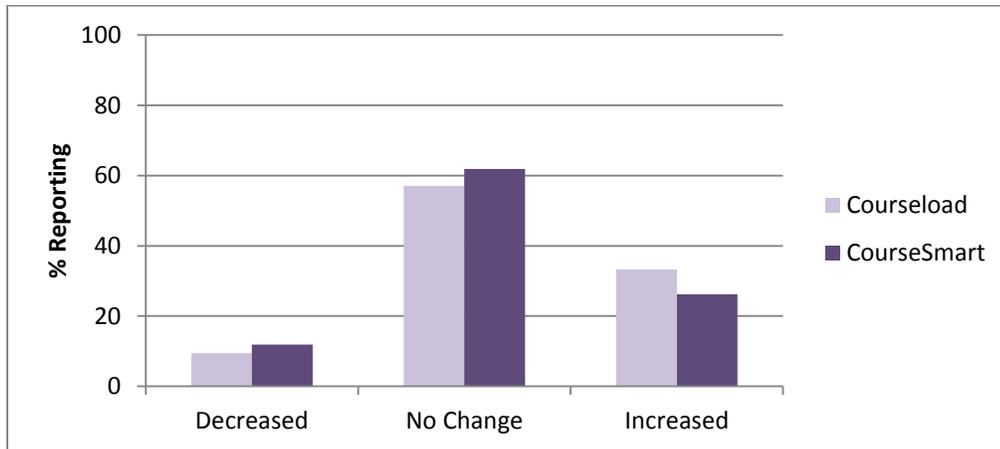
Figure 7. eText effect on professor interaction



Overall, the majority of students (63.3%) believed that using an eText had no impact on their grade (Figure 8). Eleven percent of users felt that the eText decreased their grade, while 28.6% reported that their grade increased as a result of using an eText. The proportion of students who believed their performance in the course improved due to using an eText varied from 21.4% to 36.4%. Students using the Courseload reader were somewhat more likely to report an increased grade (33.3% vs. 26.2% for CourseSmart). Survey responses were

completed before students had received their official grades for the quarter. Because the numbers of students in these categories are small (33.3% represents 7 Courseload students and 26.2% represents 11 CourseSmart students), there are not enough data to know what habits and opinions distinguish these students from their peers who saw no change in their performance. As data from more classes are available, we will explore this response further.

Figure 8. eText effect on grade



Ease of Use & Technology Problems

Encountering problems/obstacles while using the eText was more likely to be reported by CourseSmart users compared to Courseload users (40.5% vs. 28.6%). In most cases the problems did not require the student to contact support via etext@uw.edu. CourseSmart users had problems most frequently with using features of the eText and other, non-specified activities. Of the problems encountered by Courseload users, difficulty with registration and connectivity were the most common.

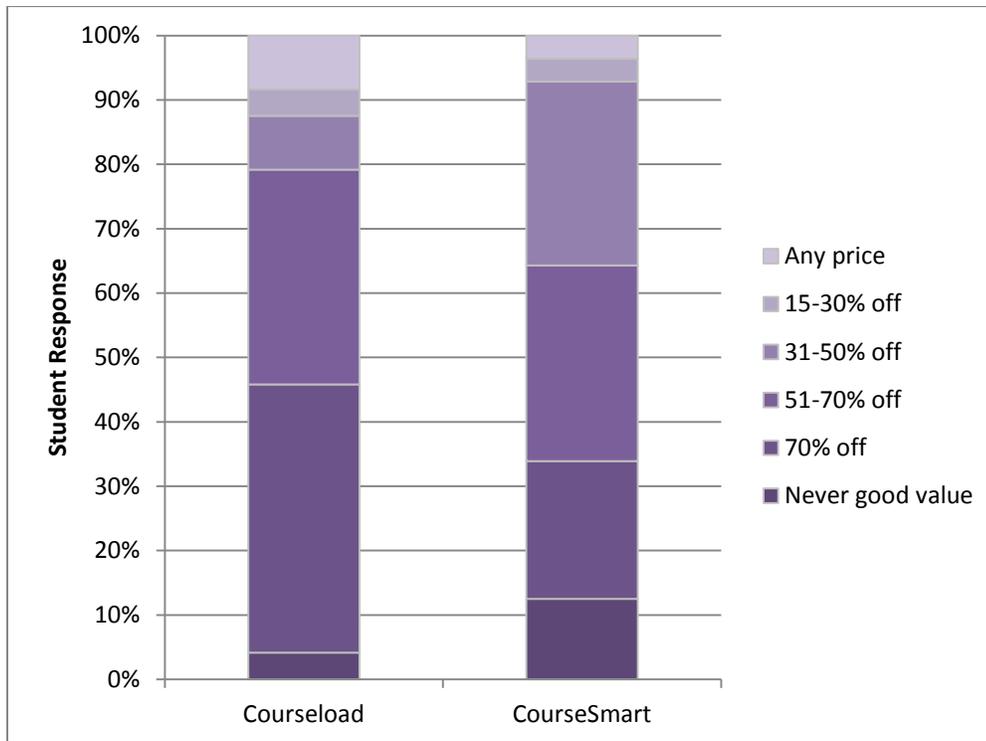
Students were asked to rate the difficulty of several activities using the eText. The task with the greatest difficulty rating in Courseload was reading on a mobile device (rating 2.18 where 1 is very difficult and 4 is very easy). In CourseSmart, the most difficult-rated task was printing notes (2.06). In contrast, printing notes in Courseload was one of the easiest-rated tasks (3.25), second only to accessing the eText throughout the quarter (3.33). CourseSmart users also found accessing the eText throughout the quarter to be the easiest task.

Some students wrote in responses to say that while they appreciated certain eText features, the strain of reading on a screen outweighed the potential benefits of the features. Students felt that after completing assignments using a computer, doing the reading on a computer made for far too much screen time. One student reported, "I have more difficulty focusing when I read on the computer, probably because there are more distractions (the internet, etc) and also because I like the tangible feel of a physical book."

Cost and Pricing Model

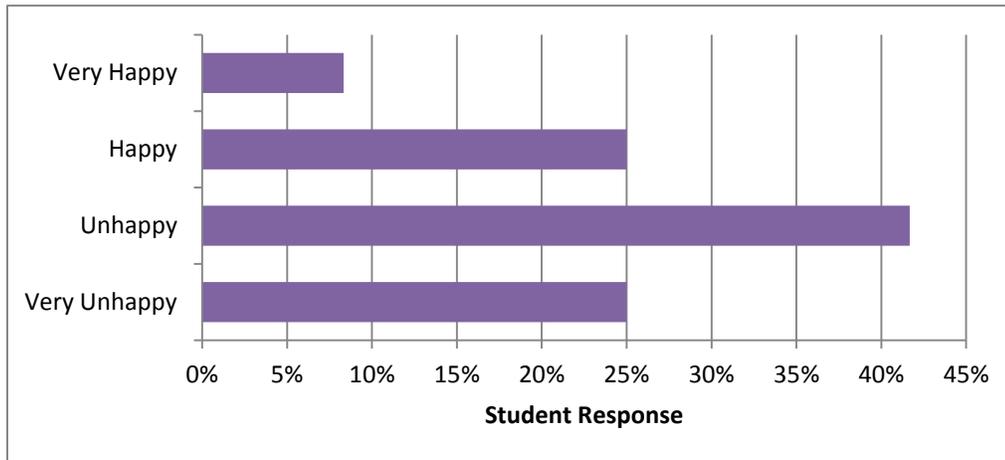
For eTexts to be a good value, a majority of students felt that the price should be discounted at least 50% off of list price (Figure 9). Some students did not feel that eTexts were a good value at any price (16.3%). Students who used CourseSmart were more likely to report this opinion than students who used Courseload.

Figure 9: Discount required for eText to be a good value



Courseload users were asked their opinion regarding the requirement that all students in a class using Courseload purchase the eText. This charge typically is administered in the form of a course fee, representing a discounted textbook price and a per-student fee for using the reader. Two-thirds of these students stated that they would be unhappy or very unhappy to be charged a course fee to cover the cost of eText access (25% and 41.6% respectively) (Figure 10). Eight percent said they would be very happy with this system and 25% said they would be happy.

Figure 10: Opinions of Courseload system requirement that all course enrollees purchase eText



Many respondents expressed discomfort with the fact that students would no longer have a choice of buying the textbook for the class. One student wrote, “I do not like that it would be required to purchase the book. Some [classes] I have taken I did not need the book. It should be my choice if I purchase the book or not.”

Priorities for Future Adoption of eTexts

In ranking the top priorities for the UW to consider in determining the future of eTexts on campus, students felt the amount of discount over the cost of a hard copy to be the most important factor. More than half of respondents rated this factor as their top priority and it was also the top ranked priority in each of the five courses. The amount of collaborative reading features available was deemed least important by students using either platform. Priority rankings were consistent across eText platforms and courses. No relationship was evident between each course’s textbook price and the priority ranking assigned to amount of discount.

Mean Priority ranking including rating from both CourseSmart and Courseload users, and number of times each was given a top and lowest ranking.

Table 2: Student priorities

Priority	Mean Priority Rating (1 top priority; 6 lowest priority)	Number of top priority votes	Number of lowest priority votes
Amount of Discount	1.91	46	3
Reading Features	3.09	9	5
Ability to Print	3.62	5	12
Mobile Device Availability	3.97	7	16
Length of Access	3.99	7	23
Collaborative Features	4.44	4	19

Limitations

There are a few noteworthy limitations with regards to the analysis sample. First, the relatively small sample size (N=80) restricts opportunities to conduct inferential statistical testing, and to thus draw strong conclusions regarding differences in the two platforms. Though the overall response rate was good (47%), the small number of students enrolled in the eText courses resulted in a low number of overall survey responses. This report is based on 24 student responses for Courseload and 56 for CourseSmart. Courses enrolled in Spring Quarter and Summer Quarter 2012 pilots were small to mid-sized. Larger courses are using both Courseload and CourseSmart during Autumn Quarter 2012.

Describing the results from five courses (two courses used Courseload and three used CourseSmart) limits the range of experiences captured. One of the courses using CourseSmart supplemented the textbook with extensive lecture notes, which were not available through the eText reader. Consequently, many of the students in this class did not use the eText platform at all.

Conclusions

These preliminary data show that the two eText platforms assessed do not appear, so far, to substantially enhance students' educational experience. While students like searching within an eText, most prefer the experience of reading a hard copy of the textbook. Little use was made of collaborative features that have the potential to transform the reading experience. While students appreciated the opportunity provided by this pilot to access the eTexts at no charge, they did voice concerns over the pricing structures for eTexts offered by the different vendors—either believing that they need to be offered at a substantial reduction in price in order to be a good value or being unhappy with the idea of a mandatory purchase requirement to obtain a discount. While most students felt the eTexts had no effect on their collaboration with classmates, interaction with their instructor, and performance in the course, approximately a quarter did believe that eTexts improved their performance. This trend will be explored further as more data (and a larger sample) are available, in order to identify what characteristics separate the students who see these benefits from their peers, and to identify the specific aspects of the eText that increased performance. As we move towards the end of Autumn Quarter 2012, we will continue to explore all of these trends, collecting data from students in the 11 courses using eTexts this quarter. These data will allow us to see how these preliminary trends hold up, or not, in a larger context of use. When additional data is available from the continuing phases of this pilot project, UW-IT will be able to evaluate the effect of eTexts both at the UW and within the context of eText evaluations being carried out by other higher education institutions.