2010 Florida Student Textbook Survey

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The Florida Distance Learning Consortium is a network of all public (39) post secondary institutions in Florida that serve 1.3 million postsecondary students annually. This legislatively funded entity supports all institutions in their delivery of technology mediated learning through quarterly meetings, web services and resources including an online catalog of distance learning courses at www.distancelearn.org and an emerging storehouse of learning content and open textbooks, The Orange Grove Repository.

Citation


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2010 Florida Student Textbook Survey

Executive Summary

In response to the Open Access Textbooks Task Force Report (2010), pursuant to the 2009 legislative charge to develop a plan for promoting and increasing the use of open access textbooks as a method for reducing textbook costs (Section (s.) 1004.091(2), Florida Statutes (F.S.), a survey of Florida higher education students was conducted to learn more about some of the issues underlying textbook costs and alternative solutions.

The Florida Distance Learning Consortium (FDLC), with the collaboration of the Board of Governors (BOG) of the State University System of Florida and staff of the Division of Florida Colleges (DFC), developed a statewide student survey on textbook acquisition and use. In addition, the Consortium received support from The Orange Grove Repository Committee in to identify the objectives and develop survey questions.

Purpose and Objectives

The purpose of the survey was to assess students’ textbook acquisition choices, the reasoning behind them, and the attitudes of students who face the harsh reality of increasing textbook costs. Specific objectives of the survey were to identify:

- student perceptions regarding the use of open textbooks and e-textbooks
- whether the cost of textbooks impacts the number of courses students take
- whether the cost of textbooks impacts the students’ selection of courses
- types of supportive digital educational resources preferred by students
- means students use to access or acquire digital reading materials

During the fall of 2010 and early spring of 2011, 14,221 students from all 11 of Florida’s state universities and 26 of its 28 colleges, community colleges and state colleges voluntarily completed the anonymous online survey. Of the respondents, 6619 (47%) were enrolled in universities and 7921 (56%) were enrolled in colleges (319 [2%] were enrolled in both a university and a college). Local campus officials solicited student participation.

Findings

The results of this study form a baseline for an understanding of how higher education students perceive the impact of textbook cost on their academic decisions and outcomes, and their use of digital textbooks and educational resources. Major findings from this study are:

- **Cost**: The most frequently selected response reflecting students textbook cost was the $301-400 per year range. Approximately 56% of the responses to the amount students spent on textbooks in fall 2010 fell between $201 and $500. Higher financial aid coverage for textbook costs was found for students who attended universities and by those who had
completed 61-120 hours toward their degrees. This may be related to a student’s full time status and eligibility for such aid.

- **Required textbook unused**: More than half of the respondents reported that they had been required to purchase a textbook that was not used for the class occasionally, and more than one fourth of reported that it had happened frequently.

- **Cost consequences**: Students reported that the high cost of textbooks had caused them to, frequently or occasionally:
  - Not purchase the textbook (51%)
  - Not register for a course (24%)
  - Withdraw from a course (11%)
  - Fail a course (7%)

- **Ways to reduce cost**: A large proportion (45%) of respondents said they would rent or buy electronic textbooks if it would save them money.

- **Technology use**: A large number of respondents (77%) also reported that when they accessed electronic reading materials it was primarily on a stand-alone personal computer or public computer. At the time the study was conducted, relatively few (12.5%) used other technologies such as cell phones or e-readers for this purpose.

- **Preferences for textbook formats**: Over 60% of students reported an interest in using electronic textbooks (college 63.2%; university 60.2%). The top four reasons cited by students who were *not* interested in using digital textbooks were:
  1. desire for a printed textbook to highlight and annotate (81%),
  2. inconvenience of reading electronic text (36%),
  3. difficulty of moving within text (30%), and
  4. lack of access to technology for using electronic textbooks (15%).

- **Preferences for digital features**: For students who were interested in the use of electronic books and materials, electronic versions that could be printed were most highly ranked. The five most important features students identified in electronic textbooks were:
  1. the ability to search within the book,
  2. the length of time the electronic book would be available for use,
  3. the ability to print the book,
  4. the ability to highlight information, and
  5. the availability of a commercially bound textbook.
• **Study aids:** The study aids most frequently identified by students as assisting them in achieving good grades were:
  1. practice questions (76%),
  2. PowerPoint slide shows (52%),
  3. interactive “now try-it” activities (40%), and
  4. video (38%)

• **Lack of knowledge about open textbooks:** Students comments in open ended responses revealed misconceptions and concerns about open textbooks\(^1\):
  o they might not be able to download, save, and print, but rather have online access only
  o the open textbook might not be a permanent copy with lifetime access
  o they might not have the opportunity to purchase a print edition
  o the “print on demand” option might not always be available
  o the open textbook might add to their textbook cost instead of reducing it
  o they might not be able to highlight or annotate the text (The option to highlight or annotate an electronic version of the text is not available in all electronic versions of open textbooks.)
  o the quality of the open textbook might be unsatisfactory
Some students also indicated that they did not know enough about open textbooks to answer questions on the topic. The concerns introduced by students merit attention and action if an open textbook initiative is to become supported by students. Most of the concerns about paying a fee for open textbooks arise from their not being informed of the proposed open textbooks initiative, such as concerns about having to pay each time the student accesses the text.

• **Willingness to pay an open textbook materials fee:** Forty-seven percent of students responding said they were willing to pay between $5 and $10 to support keeping open textbooks current and to support future development of open textbooks. Forty percent said, “Maybe,” and only 11 percent answered “No,” that they would not be willing to pay such a fee. Open ended responses from the “Other” category indicated that misunderstanding, ambivalence, or conditional acceptance was based on concerns that:
  o the fee might be charged in addition to the fee for the usual textbook
  o the fee might be charged every time they access or use the open textbook online
  o financial aid might not cover the fee
These concerns may have influenced some respondents not to answer “Yes.”

\(^1\)A definition of open textbooks was provided to respondents: “Open Textbooks are freely accessible digital textbooks that can be read online, self-printed or downloaded via any computer with Internet access at no or low cost. In addition, students may often be able to order a commercial "print on demand" copy of an open textbook at a modest cost.”
Implications for Practice

The results of this survey suggest that the cost of textbooks has affected students’ choices regarding the number of courses they take and which courses they take. The net effect of taking fewer courses per term is, of course, a longer college career and a delay of graduation, both of which have negative effects on the economy. The choice not to take a course or pursue a field of study could, in some cases, limit a student’s intellectual growth and development. Furthermore, when students do not have the required materials, their success in a course can be negatively affected. The authoring and adoption of open textbooks has potential to mitigate these detrimental effects of high textbook costs.

Strategies for Addressing Textbook Affordability

Based on the results of this survey and consideration of previous research, a successful strategy to address the issue of textbook affordability would seem to include the following components:

- **Raise Awareness** – Findings from the survey suggest that students learn and incorporate cost-saving strategies as they advance through their academic careers. Students need to be informed early of options available for reducing textbook costs, such as used textbooks, rental programs, digital textbooks, individual chapters, open textbooks, and library checkout.

- **Ensure Usage** – Over one-quarter of respondents reported that they had frequently been required to purchase textbooks that were not used in class, and half reported that this requirement had occasionally been imposed on them. Departments and faculty need to ensure that required textbooks are incorporated into the instruction.

- **Ensure Access** – To address cost consequences identified by students (not purchase required textbook, not register for, withdraw from, or fail courses), access to affordable digital textbooks as well as the necessary technology must be ensured. In addition, the findings suggest that students need options for access, such as permanent license to a digital book, textbook rental, library checkout, and online download to computers or mobile devices.

- **Provide Format Options** – Students want options for the format of textbook they use. The majority of students (62%) indicated that they are interested in using electronic textbooks. Seventy-three percent rated the availability of a print version as an important or very important option. Whenever feasible, faculty should strive to make textbook selections, including open textbooks, for which both digital and print options are available to students.

- **Engage Libraries** – The campus library is a provider of access to open and electronic books. However, only four percent of the respondents indicated that they had used reserve copies of the textbook from the library. Faculty should work with librarians to determine the feasibility of providing textbooks in both print and digital formats, and if feasible, they should inform their students of those library holdings.

- **Support Creation and Sustainability of Open Textbooks** – Policymakers at national, state, and campus levels have supported the funding of open textbook initiatives to make textbooks affordable for students, and students indicated in this survey that they would be open to providing support. The apparent willingness of students to pay a fee to support the production and maintenance of open textbooks suggests that funding through a materials fee charged to students using open textbooks would be an acceptable way to save them hundreds of dollars each year.
- **Supporting Textbooks with Ancillaries** – Textbooks alone may not fully support students in their studies. Whenever possible, faculty should identify and make available to students the learning aids respondents identified as most useful: practice questions, PowerPoint slide shows, interactive “now try-it” activities, and video.

The general implication regarding students’ concerns is that students should have both print and electronic options available; they want choices at a cost they can afford. With regard to open textbooks, communication to students should clearly convey that open textbooks are peer-reviewed and professionally edited, that students can have lifetime access to open textbooks, and that professionally printed editions are available. These concerns will require continued attention in the effort to reduce the costs of learning resources.
2010 Florida Student Textbook Survey

Background

The climate in which this study was conducted includes a declining economy and increasing costs associated with higher education, i.e. tuition, fees, and textbooks. Together these costs challenge the means of all but the wealthiest of students to continue their education. Textbooks involve a monetary cost to the producer as well as the student consumer. Unlike most products, however, the student consumer generally does not choose which textbook will be purchased. The challenges confronting students in finding a way to pay for or continue their education could in turn decrease the number of college graduates in the U.S. and ultimately the quality of the country’s internal and international economic competitiveness.

Within the last decade, major advances in information, communication, and instructional technology are credited for developing more efficient, effective and economical ways to support teaching and learning. To better understand the factors affecting students’ use of educational materials, both print and digital, this survey collected information on students’ costs, cost consequences, preferences for formats and functions, means of acquisition, and use of educational resources in Florida’s higher educational system. Results of this research are intended to provide data to educators and policymakers with which to make informed decisions about future directions for higher education textbooks and other educational resources.

2 According to the College Board (2011), the average postsecondary student at a four-year public college paid $1,137 for textbooks during the 2010-2011 academic year. Since 1994, the cost of textbooks has risen at nearly four times the rate of inflation (Student PIRGs, n.d.).

3 For some students, textbook costs become the “tipping point” between going to college and not being able to afford to go to college (Student PIRGs, n.d.).
Methodology

To better understand the factors affecting students’ perceptions of digital educational resources and their effects upon finances, decisions, and outcomes, in 2010 the Florida Distance Learning Consortium (FDLC), with the collaboration of the Board of Governors (BOG) staff of the State University System of Florida and the staff of the Division of Florida Colleges (DFC), developed an online survey, the Florida Student Textbook Survey, to be administered statewide to university and state college students. In developing the survey, the FDLC Student Textbook Survey Committee, consisting of consortium members and staff Elspeth McCulloch, Hector Valle, Bill Waters, Vicki Westergard, Robin Donaldson, and Susie Henderson, outlined the primary objectives of the survey and solicited questions from all consortium members using an online form to collect the items. Following their collection and revision of items, FDLC staff worked with BOG and DFC staff to revise the survey and refine the items.

Data collection technique.

The survey included 24 questions regarding students’ experiences, perceptions, and use of printed and digital educational resources. It was presented via a structured online survey using a program (SurveyMonkey) to allow for anonymous responses for specific wording of questions. The survey was conducted between September 21, 2010 and March 21, 2011.

Letters of support were emailed from the Board of Governors to the State University System Council of Student Affairs of the 11 state universities and from the Division of Florida Colleges to Florida’s 28 colleges. The letters requested that the institutions solicit the voluntary participation of their students and provided a link to the survey. The methods and format of the solicitation for student participation in the survey was handled internally within the institutions. Introductory information within the online survey included an assurance that responses were anonymous and confidential.

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4 SurveyMonkey © [www.surveymonkey.com](http://www.surveymonkey.com)
5 Senior Vice Chancellor, Board of Governor’s Office and the Office of Academic & Student Affairs
6 Executive Vice Chancellor of the Florida Board of Education
Sample

The target population included students who were enrolled in Florida’s public universities and colleges. A voluntary, non-random sample totaling 14,221 students was obtained. The design of the study included questions to identify factors influencing student awareness and use of online education materials, their perceptions and preferences for those materials, and whether or not students would change their usage from print to digital materials to save money.

The objectives of the study were to identify:

- student perceptions regarding the use of open textbooks and e-textbooks
- whether the cost of textbooks impacts the number of courses students take
- whether the cost of textbooks impacts the students’ selection of courses
- types of supportive digital educational resources preferred by students
- means students use to access or acquire digital reading materials

Data analysis.

After the online survey closed, the data was processed and statistically analyzed. Descriptive data for all survey items was generated using SPSS programming software and was further compared for significant associations. The results are presented in the following sections of this report. The analysis of the data and preparation of this report of survey results were performed by Ida Cook, Ph.D., Associate Professor of Sociology, University of Central Florida and Melissa Henson, Graduate Research Associate, in consultation with FDLC Associate Executive Director Susie Henderson.

The report presents descriptive and comparative analyses about textbook and other educational material use, preferences and behaviors. It highlights key comparisons between variables to identify ways in which different groups of students might be more likely to access and use learning materials. The results inform educators and distance learning professionals about the situation and opportunities for more efficient and inexpensive options for learning materials and possible mechanisms for their use. The Appendix provides information about student responses to each of the questions.
Results

The online survey was distributed to Florida’s universities (11) and colleges (28) between September 21, 2010 and March 21, 2011. A total of 14,221 students at all of the universities and 26 of the colleges completed the survey. Tables and figures present data based upon the total number of respondents who answered a given question. The total number presented in different tables varies due to student non-response to certain items, or because the given question allows students to choose more than one answer from a list of items so that the total number of responses exceeds the sample size. The number of graduate students was small (n = 1,339; 10.6%), and the decision was made to include their responses in all counts.

This section of the report provides and discusses tables and charts depicting the higher education student survey results using frequency calculations, averages, comparisons and statistical tests where appropriate. Note that discussion of the results moves from past experience, through current behavior, to possible future behaviors, i.e. examines alternative educational media and formats for the students’ purchase, use, and potential savings. As a result, presentation of data for responses does not progress consecutively through questions from the survey. Question numbers are noted above the tables and figures in which data are presented. The appendix presents results for each of the questions in the order they were asked on the survey.

Demographic characteristics

A greater proportion of respondents were enrolled in state and community colleges (n = 7,921; 55.7% of the total) than in universities (n = 6,619; 46.5%). Approximately 319 participants were enrolled in both a college and a university. The participation of students in the different universities varied considerably. Three universities accounted for almost 62 percent of the participation by university students:

1. University of Central Florida (n = 1,544; 23.3%)
2. University of West Florida (n = 1,443; 21.8%)
3. Florida Gulf Coast University (n = 1,113; 16.8%)

See Table A–2 in the Appendix for the number and percentage of participants by university.

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7 The total number enrolled in colleges and universities, 14,540, included 319 participants who were enrolled simultaneously at a college and at a university, and thus counted twice.
Over half of all state college respondents reported that they were enrolled in one of four colleges:

1. Pensacola State College \((n = 1,486; 18.8\%)\)
2. Palm Beach State College \((n = 1,101; 13.9\%)\)
3. Pasco-Hernando State College \((n = 918; 11.6\%)\)
4. College of Central Florida \((n = 900; 11.4\%)\)

See Table A–3 in the Appendix for the number and percentage of participants by college.

Ninety-one percent of respondents reported pursuing either an associate or bachelor’s degree. Over 58 percent of respondents indicated they were pursuing either an associate’s degree or had completed 0-60 credit hours in their pursuit of a bachelor’s degree. Nearly seven percent reported seeking Master’s degrees and 2.5 percent doctorates. Just over three percent were non-degree seeking students.

Students were asked to select from among 37 different categories from which to identify their major area of study. The 37 areas of study were sorted into five major groups:

1. Science (48%)
2. Social Science (22%)
3. Education (11%)
4. Engineering (11%)
5. Arts and Humanities (9%)

The assignment of the 37 areas of study to the five broad categories can be found in the notes to Table A–5 in the Appendix.

Nearly three-fourths of all respondents were enrolled full-time at their educational institutions and just over one-fourth were part-time students.

Ninety percent of all respondents indicated that English was their native language (See Table A–7 in the Appendix).

**Past experience with textbooks**

To examine students’ perceptions of whether or how often they made unnecessary book purchases, a survey question asked with what frequency they had been required to purchase textbooks that were not used in the class. Over 50 percent of respondents reported that this requirement had occasionally been imposed on them. Over one-quarter said that they had experienced this requirement frequently in their classes (see Table 1).
Table 1. Purchase Textbook Not Used in Class
Q. 20. How frequently have you been required to purchase a textbook that was not used for the class?

<table>
<thead>
<tr>
<th>Frequency of Requirement</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>2586</td>
<td>21.1</td>
</tr>
<tr>
<td>Occasionally</td>
<td>6492</td>
<td>52.9</td>
</tr>
<tr>
<td>Frequently</td>
<td>3203</td>
<td>26.1</td>
</tr>
<tr>
<td>Total</td>
<td>12281</td>
<td>100.0</td>
</tr>
</tbody>
</table>

In examining the past experiences of students with educational materials, respondents were asked to identify from a list of types of study aids any that they believed helped them to achieve good grades. The most frequently reported study aids that have assisted students in achieving good grades were as follows (see Table 2):

1. Practice questions (76%)
2. PowerPoint slide shows (52%)
3. Interactive “now try-it” activities (40%)
4. Video (38%)

Table 2. Study Aids - Achieve Good Grades
Q. 22. What study aids help you achieve a good grade? Select all that apply.

<table>
<thead>
<tr>
<th>Study Aids</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice questions</td>
<td>10870</td>
<td>76.4</td>
</tr>
<tr>
<td>PowerPoint slide shows</td>
<td>7382</td>
<td>51.9</td>
</tr>
<tr>
<td>Interactive “now try it” activities</td>
<td>5657</td>
<td>39.8</td>
</tr>
<tr>
<td>Video</td>
<td>5349</td>
<td>37.6</td>
</tr>
<tr>
<td>Animations</td>
<td>3495</td>
<td>24.6</td>
</tr>
<tr>
<td>Collaborative activities</td>
<td>3191</td>
<td>22.4</td>
</tr>
<tr>
<td>Audio</td>
<td>3138</td>
<td>22.1</td>
</tr>
<tr>
<td>Online discussions</td>
<td>2577</td>
<td>18.1</td>
</tr>
<tr>
<td>Online tutoring system provided by the college</td>
<td>2284</td>
<td>16.1</td>
</tr>
<tr>
<td>Podcasts</td>
<td>880</td>
<td>6.2</td>
</tr>
<tr>
<td>Other: study guides, flashcards, labs, F2F tutoring, companion website</td>
<td>203</td>
<td>1.4</td>
</tr>
<tr>
<td>Total of selections</td>
<td>44823</td>
<td></td>
</tr>
</tbody>
</table>

Note: The Percent column indicates the percentage of students who identified the study aid as helpful.
Current experiences with textbooks

The survey inquired how students accessed their textbooks in Fall 2010 (see Table 3).\(^8\) Students were allowed to indicate multiple methods for accessing their textbooks. More than three-quarters of the respondents said they accessed used, printed versions of their textbooks. More than half (57%) accessed new print versions of their textbooks. One-quarter (24.8%) reported renting textbooks. Only approximately twelve percent accessed e-versions of textbooks and approximately six percent accessed open textbooks.

Table 3. How Students Access Textbooks
Q. 14. For Fall 2010, how do you access your textbooks? N=12252

<table>
<thead>
<tr>
<th>How Students Access Textbooks</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Print - used</td>
<td>9398</td>
<td>76.7</td>
</tr>
<tr>
<td>Print - new</td>
<td>6997</td>
<td>57.1</td>
</tr>
<tr>
<td>Print - rented</td>
<td>3037</td>
<td>24.8</td>
</tr>
<tr>
<td>Print - borrowed (no cost)</td>
<td>1794</td>
<td>14.6</td>
</tr>
<tr>
<td>eBook - limited ownership license</td>
<td>1124</td>
<td>9.2</td>
</tr>
<tr>
<td>Checked out from the library or inter-library loan</td>
<td>652</td>
<td>5.3</td>
</tr>
<tr>
<td>Open Textbook - online, download, self-print</td>
<td>557</td>
<td>4.5</td>
</tr>
<tr>
<td>eBook - permanent access</td>
<td>443</td>
<td>3.6</td>
</tr>
<tr>
<td>Open Textbook - commercial print</td>
<td>270</td>
<td>2.2</td>
</tr>
<tr>
<td>Total number of selections</td>
<td>24272</td>
<td></td>
</tr>
</tbody>
</table>

Note: The Percent column indicates the percentage of students who identified the way they accessed resources.

Students were also asked to indicate how many textbooks they had purchased in Fall 2010 (see Table 4). Ninety percent reported having purchased between one and seven books, and nearly half reported purchasing between four and seven.

\(^8\) For this question only, the survey structure limited student ability to insert information for winter and spring terms. Consequently, they are omitted from the discussion and analysis. Data for Fall 2010 are being used as a snapshot or cross-section description of student behavior.
Table 4. Number of Textbooks Bought in Fall 2010 Semester

Q. 7. How many textbooks did you buy for the Fall 2010 semester?

<table>
<thead>
<tr>
<th>Number of Textbooks</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>338</td>
<td>2.7</td>
</tr>
<tr>
<td>1 – 3</td>
<td>5052</td>
<td>40.9</td>
</tr>
<tr>
<td>4 – 7</td>
<td>6070</td>
<td>49.1</td>
</tr>
<tr>
<td>8 – 12</td>
<td>773</td>
<td>6.3</td>
</tr>
<tr>
<td>13 – 18</td>
<td>51</td>
<td>0.4</td>
</tr>
<tr>
<td>19 – 24</td>
<td>18</td>
<td>0.1</td>
</tr>
<tr>
<td>25 – 30</td>
<td>7</td>
<td>0.1</td>
</tr>
<tr>
<td>31 – 36</td>
<td>3</td>
<td>0.0</td>
</tr>
<tr>
<td>Rented</td>
<td>40</td>
<td>0.3</td>
</tr>
<tr>
<td>Borrowed</td>
<td>7</td>
<td>0.1</td>
</tr>
<tr>
<td>Total</td>
<td>12359</td>
<td>100.0</td>
</tr>
</tbody>
</table>

When the number of textbooks purchased is examined by type of institution, higher proportions of college students (46%) purchased between 1 and 3 textbooks than university students (34%) and higher proportions of university students (51%) reported purchasing between 4-7 textbooks than college students (48%). This may be due to the fact that a higher proportion of college students in the sample (33%) were enrolled part-time than university students (15%). Indeed, a moderate relationship was found between the number of textbooks bought by students and their enrollment status (full-time or part-time) (eta = .331, p < .001).

Cost of textbooks, Fall 2010.

When students were asked how much money they spent on textbooks in the Fall 2010 semester, the majority (57%) reported they paid between $201 and $500 (Table 5). Forty percent of students reported that they paid more than $400 for their books.
Table 5. Amount Spent on Textbooks in Fall 2010 Semester
Q. 8. How much did you spend on your textbooks for the Fall semester 2010?

<table>
<thead>
<tr>
<th>Dollar Amount</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0 – 100</td>
<td>924</td>
<td>7.5</td>
</tr>
<tr>
<td>$101 – 200</td>
<td>1582</td>
<td>12.8</td>
</tr>
<tr>
<td>$201 – 300</td>
<td>2397</td>
<td>19.4</td>
</tr>
<tr>
<td>$301 – 400</td>
<td>2495</td>
<td>20.2</td>
</tr>
<tr>
<td>$401 – 500</td>
<td>2139</td>
<td>17.3</td>
</tr>
<tr>
<td>$501 – 600</td>
<td>1489</td>
<td>12.1</td>
</tr>
<tr>
<td>$601 or more</td>
<td>1305</td>
<td>10.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>12331</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Cost consequences for students

When asked what measures they had taken to reduce textbook costs (Table 6), only 2.6 percent of respondents reported that they had not taken any such measures. Over 37 percent reported not buying the required textbook. Nearly three-quarters (72%) bought new or used books online. Fifty-eight percent reported selling used books, and 39 percent indicated that they shared textbooks with classmates to reduce their textbook costs. Most students (64%) reported buying used copies from the campus bookstore. Only 13 percent reported using a reserve copy from the campus library.
Table 6. Measures Used to Reduce Textbook Cost
Q. 11. What measures have you taken to reduce your textbook costs? Check all that apply.

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>Responses</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buy used or new books online from source other than the campus bookstore</td>
<td>8932</td>
<td>72.2%</td>
</tr>
<tr>
<td>Buy used copies from campus bookstore</td>
<td>7940</td>
<td>64.2%</td>
</tr>
<tr>
<td>Sell used books</td>
<td>7170</td>
<td>58.0%</td>
</tr>
<tr>
<td>Share books with classmates</td>
<td>4808</td>
<td>38.9%</td>
</tr>
<tr>
<td>Do not purchase the required textbook</td>
<td>4585</td>
<td>37.1%</td>
</tr>
<tr>
<td>Rent textbooks through an on-campus rental program</td>
<td>3003</td>
<td>24.3%</td>
</tr>
<tr>
<td>Buy an electronic version of a textbook</td>
<td>2101</td>
<td>17.0%</td>
</tr>
<tr>
<td>Use a reserve copy in the campus library</td>
<td>1576</td>
<td>12.7%</td>
</tr>
<tr>
<td>Buy only the e-textbook chapters needed for the course</td>
<td>861</td>
<td>7.0%</td>
</tr>
<tr>
<td>Do not attempt to reduce textbook costs</td>
<td>316</td>
<td>2.6%</td>
</tr>
<tr>
<td>Other</td>
<td>1123</td>
<td>9.1%</td>
</tr>
</tbody>
</table>

In addition to trying to find ways to reduce the cost of their assigned textbooks, students also experienced consequences that they attributed to the high cost of textbooks. Question 10 asked students how frequently the cost of textbooks caused them to (a) not purchase the textbook (b) not register for a course, (c) withdraw from a course, or (d) fail a course (see Table 7).

Table 7. Consequences of Textbook Costs
Q. 10. The cost of required textbooks has caused me to:

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Seldom</th>
<th>Occasionally</th>
<th>Frequently</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not purchase the textbook</td>
<td>3670 (34.9%)</td>
<td>1506 (14.3%)</td>
<td>3171 (30.1%)</td>
<td>2181 (20.7%)</td>
<td>10528</td>
</tr>
<tr>
<td>Not register for a course</td>
<td>6256 (64.1%)</td>
<td>1171 (12.0%)</td>
<td>1673 (17.2%)</td>
<td>646 (6.6%)</td>
<td>9746</td>
</tr>
<tr>
<td>Withdraw from a course</td>
<td>7379 (79.2%)</td>
<td>948 (10.2%)</td>
<td>744 (8.0%)</td>
<td>241 (2.6%)</td>
<td>9312</td>
</tr>
<tr>
<td>Fail a course</td>
<td>7760 (83.6%)</td>
<td>850 (9.2%)</td>
<td>490 (5.3%)</td>
<td>177 (1.9%)</td>
<td>9277</td>
</tr>
</tbody>
</table>

Nearly 24 percent of respondents reported not purchasing the textbook occasionally or frequently. More than one third of all students (36%) indicated that they did not register for a course because of the cost of textbooks. Twenty-one percent of all students reported withdrawing
from a class because of the high cost of textbooks. Sixteen percent indicated that they had failed a class because of the high cost of textbooks.

The survey asked students if they would rent their required textbooks if it would save them money (Table 8). Sixty-one percent indicated that they would be willing to rent textbooks if it would save them money. Only 14.4% said they would not be willing to rent textbooks to save money.

**Table 8. Whether or not Student Would Rent Textbooks**

<table>
<thead>
<tr>
<th>Willingness to Rent Textbooks</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>1787</td>
<td>14.4</td>
</tr>
<tr>
<td>Maybe</td>
<td>2581</td>
<td>20.9</td>
</tr>
<tr>
<td>Undecided</td>
<td>477</td>
<td>3.9</td>
</tr>
<tr>
<td>Yes</td>
<td>7525</td>
<td>60.8</td>
</tr>
<tr>
<td>Total</td>
<td>12370</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Questions about possible solutions to textbook costs**

*Library lending electronic textbooks.*

In response to the question of whether or not their educational institution’s library offered electronic textbooks, 76 percent of students responded they were not sure if they did (Table 9). The level of those answering “not sure” may be due to the infrequency with which students use their school’s library or their lack of awareness of library services. Only three percent responded that many textbooks were offered from their library, while 11 percent indicated that the library did not offer electronic textbooks for checkout.
Table 9. Library Lend Electronic Textbooks

Q. 18. Does your library offer electronic textbooks for checkout?

<table>
<thead>
<tr>
<th>Response</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not sure</td>
<td>9454</td>
<td>76.4</td>
</tr>
<tr>
<td>No</td>
<td>1365</td>
<td>11.0</td>
</tr>
<tr>
<td>Yes, limited titles</td>
<td>1169</td>
<td>9.5</td>
</tr>
<tr>
<td>Yes, many textbooks are offered</td>
<td>382</td>
<td>3.1</td>
</tr>
<tr>
<td>Total</td>
<td>12370</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Forty-five percent of respondents said they would purchase electronic textbooks for some or all of their courses to save money (see Table 10). The combined score of 33 percent for “maybe” and “undecided” highlights students’ indecision on whether they would purchase an electronic textbook. Twenty-two percent reported that they would not purchase an electronic textbook even if it saved them money.

Table 10. Whether Students Would Purchase an Electronic Version of a Textbook

Q. 12. Would you purchase an electronic version of a textbook rather than a printed version if it saved you money?

<table>
<thead>
<tr>
<th>Willingness to Purchase Electronic Version</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>2739</td>
<td>22.1</td>
</tr>
<tr>
<td>Maybe</td>
<td>3193</td>
<td>25.8</td>
</tr>
<tr>
<td>Undecided</td>
<td>849</td>
<td>6.9</td>
</tr>
<tr>
<td>Yes, for some of my courses</td>
<td>3914</td>
<td>31.6</td>
</tr>
<tr>
<td>Yes, for all of my courses</td>
<td>1675</td>
<td>13.5</td>
</tr>
<tr>
<td>Total</td>
<td>12370</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Questions about electronic books, mechanisms and future use

The survey asked students if they would be willing to pay between 5 and 10 dollars for every open textbook they used if it would maintain the currency of the textbook and help fund the development of additional textbooks for other courses. A large proportion of the respondents (88%) indicated “yes” or “maybe” to whether they would be willing to pay a modest cost for an open textbook (Table 11). Only 11 percent answered “no,” to whether they would be willing to pay such a fee. Open ended responses from the “other” category indicated that misunderstanding, ambivalence, or conditional acceptance was based on concerns that:

- the fee might be charged in addition to the fee for the usual textbook
- the fee might be charged every time they access or use the open textbook online
- financial aid might not cover the fee

These concerns may have influenced some respondents in their selection of “no” as a response. There was a consistent pattern of responses between colleges and universities.

Table 11. Willingness to Fund Open Textbooks by Type of Institution

Q. 13. Would you be willing to pay between $5 and $10 for every open textbook you use in order to maintain the currency of that textbook and help fund the development of additional open textbooks for other courses?

<table>
<thead>
<tr>
<th>Willingness to pay for Open Textbook</th>
<th>All Institutions</th>
<th>University</th>
<th>College</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Percent</td>
<td>N</td>
</tr>
<tr>
<td>No</td>
<td>1416</td>
<td>11.4</td>
<td>607</td>
</tr>
<tr>
<td>Maybe</td>
<td>5057</td>
<td>40.9</td>
<td>2229</td>
</tr>
<tr>
<td>Yes</td>
<td>5845</td>
<td>47.3</td>
<td>2720</td>
</tr>
<tr>
<td>Confused, don't understand question</td>
<td>52</td>
<td>0.4</td>
<td>23</td>
</tr>
<tr>
<td>Total</td>
<td>12370</td>
<td>100.0</td>
<td>5579</td>
</tr>
</tbody>
</table>

A definition of open textbooks was provided to respondents: “Open Textbooks are freely accessible digital textbooks that can be read online, self-printed or downloaded via any computer with Internet access at no or low cost. In addition, students may often be able to order a commercial "print on demand" copy of an open textbook at a modest cost.”
In addition to comments regarding fees associated with open textbooks, comments in the open ended responses also revealed student misconceptions and concerns about open textbooks. These included the following:

- they might not be able to download, save, and print, but rather have online access only
- the open textbook might not be a permanent copy with lifetime access
- they might not have the opportunity to purchase a print edition
- the “print on demand” option might not always be available
- the open textbook might add to their textbook cost instead of reducing it
- they might not be able to highlight or annotate the text (The option to highlight or annotate an electronic version of the text is not available in all electronic versions of open textbooks.)
- the quality of the open textbook might be unsatisfactory

Some students also indicated that they did not know enough about open textbooks to answer questions on the topic.

*Frequency of use of e-books for personal enjoyment.*

When students were asked about how often they read eBooks for personal enjoyment, 67 percent reported never having done so. Only 10% of university students and 13% of college students reported reading eBooks for personal enjoyment monthly, weekly, or daily. Figure 1 presents the distribution of respondents to this question about their personal use of eBooks by type of institution.
Q. 21. *How often do you read eBooks for personal enjoyment (online or on an electronic device)?*

**Figure 1. Frequency of Using eBooks for Personal Enjoyment by Type of Institution**

*Important formats for textbooks.*

Question 16 began with the stipulation “If cost was not a factor…” to identify the relative importance of formats for electronic materials. The responses to these questions are found in Figure 2. The availability of a textbook in a commercially printed format was identified as being important or very important to almost three-quarters (72.5%) of the students. Mobile access to an eBook by cell phone (58%) or eReader (50%) was rated as not important to half of the respondents. However, formatting for eReaders was rated as important or very important by 21%. This rating may be indicative of a low frequency of eReader ownership among Florida students at the time the survey was administered.
Q. 16. Assume cost is not a factor. How important are the following textbook formats to you?

![Bar chart showing the importance of different textbook formats](image)

**Figure 2. Importance of Different Types of Textbook Formats**
**Important features for digital textbooks.**

Students were also asked to select the three features they found most important when using digital textbooks (Figure 3). The most frequently chosen features were the ability to search within the textbook, the length of time the book is available for use, and the ability to print the book.

Q. 17. Please select the three most important features of a digital textbook.

![Important Features of Digital Textbook by Type of Institution](image)

Figure 3. Important Features of Digital Textbooks by Type of Institution

Note: *N is the number of selections made, three per student*

**How students access electronic reading material.**

Another question asked students how they currently accessed electronic reading materials (Figure 4). Nearly all students (90.5%) reported accessing electronic reading material using their personal computer. Very few students (7.4%) said they accessed electronic reading material using an eReader of their own or borrowed. Twice as many students (12.6%) responded that they accessed electronic reading material using their own cell phone as did those using their own eReader (6.3%).
Q. 19. How do you currently access electronic reading material?

![Figure 4. How Students Access Electronic Reading Material](image)

**Future actions**

Respondents were asked to consider their future use of electronic books and media based upon two different questions. First, they were asked whether or not they would be “interested in using electronic textbooks.” A second follow-up question was intended to provide reasons that best explained why those responding “no” to the previous question would not be interested or were undecided about the use of digital textbooks.

*Respondent interest in using electronic textbooks.*

Almost two-thirds of students said they would be interested in using electronic textbooks (Table 12). Slightly more college students (63.2%) than university students (60.2%) said they would be interested in using electronic textbooks.
Table 12. Interest in using Electronic Textbooks by Type of Institution

Q. 23 Are you interested in using electronic textbooks?

<table>
<thead>
<tr>
<th>Interested in using Electronic Textbooks</th>
<th>All Institutions</th>
<th>University</th>
<th>College</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Percent</td>
<td>N</td>
</tr>
<tr>
<td>Yes</td>
<td>7623</td>
<td>61.8</td>
<td>3348</td>
</tr>
<tr>
<td>No</td>
<td>4708</td>
<td>38.2</td>
<td>2218</td>
</tr>
<tr>
<td>Total</td>
<td>12331</td>
<td>100.0</td>
<td>5566</td>
</tr>
</tbody>
</table>

Reasons for not wanting to use digital textbooks.

A follow-up question was intended to provide reasons that best explained why those responding “no” to the previous question would not be interested or were undecided about the use of digital textbooks (Table 13).\(^{10}\) Students were asked to select from a wide range of choices to identify their reasons for not wanting to use digital textbooks. The most frequently mentioned reasons were a desire to have a printed copy to write in and highlight (78%), the inconvenience of reading electronic books (47%), the difficulty of moving to different pages and sections of the book (35.4%), and the lack of access to the necessary technology (11.7%).

\(^{10}\) A flaw in the logic structure of Question 23 inadvertently allowed 690 students, 9.05% of those who indicated “yes” that they were interested in using digital textbooks, to answer Question 24 rather than only giving access to respondents who indicated “no” that they were not interested, as the survey designers intended. As a result, the answers to Question 24 constitute a ranking of features that were least liked by respondents including those 690 who had initially said they were interested in using digital textbooks.
### Table 13. Reasons Not Interested in Using Digital Textbooks by Type of Institution

Q. 24 Reasons that best explain why you are NOT interested in, or are undecided on, the use of digital textbooks?

<table>
<thead>
<tr>
<th>Reasons For Not Using Digital Textbooks</th>
<th>All Institutions</th>
<th>University</th>
<th>College</th>
</tr>
</thead>
<tbody>
<tr>
<td>Like having printed copy to write in, highlight, etc</td>
<td>8630</td>
<td>4022</td>
<td>4589</td>
</tr>
<tr>
<td></td>
<td>77.8</td>
<td>78.7</td>
<td>80.6</td>
</tr>
<tr>
<td>Inconvenient to read</td>
<td>5195</td>
<td>2830</td>
<td>2352</td>
</tr>
<tr>
<td></td>
<td>46.8</td>
<td>55.4</td>
<td>39.5</td>
</tr>
<tr>
<td>Difficult to move to different pages/sections of book</td>
<td>3931</td>
<td>2081</td>
<td>1838</td>
</tr>
<tr>
<td></td>
<td>35.4</td>
<td>40.7</td>
<td>30.4</td>
</tr>
<tr>
<td>Do not have access to technology to take advantage of electronic textbooks</td>
<td>1296</td>
<td>384</td>
<td>908</td>
</tr>
<tr>
<td></td>
<td>11.7</td>
<td>7.5</td>
<td>15.2</td>
</tr>
<tr>
<td>Interested (chose interested in Q 23; answered Q 24 due to flaw in survey)</td>
<td>690</td>
<td>271</td>
<td>417</td>
</tr>
<tr>
<td></td>
<td>6.2</td>
<td>5.3</td>
<td>7.0</td>
</tr>
<tr>
<td>Access issues (internet, laptops, classroom, licensing, need to always carry equipment with)</td>
<td>598</td>
<td>252</td>
<td>345</td>
</tr>
<tr>
<td></td>
<td>5.4</td>
<td>4.9</td>
<td>5.8</td>
</tr>
<tr>
<td>Distractability (eye strain/headaches, impairs learning, difficulty focusing, not learning/visual disabled friendly)</td>
<td>443</td>
<td>265</td>
<td>175</td>
</tr>
<tr>
<td></td>
<td>4.0</td>
<td>5.2</td>
<td>2.9</td>
</tr>
<tr>
<td>English is second language - more comfortable with print copy textbook</td>
<td>274</td>
<td>118</td>
<td>154</td>
</tr>
<tr>
<td></td>
<td>2.5</td>
<td>2.3</td>
<td>2.6</td>
</tr>
<tr>
<td>Issues with costs of digital textbooks and technology</td>
<td>174</td>
<td>80</td>
<td>94</td>
</tr>
<tr>
<td></td>
<td>1.6</td>
<td>1.6</td>
<td>1.7</td>
</tr>
</tbody>
</table>

N=11097; University N=5111; College N=5961. Percent is a function of number of students responding.

### Interrelationships between student behaviors

The analysis conducted in this report provides evidence of the linkage between student decisions, educational materials, their costs and consequences. While discussion of the relationships appears to be obvious, they were analyzed statistically\(^\text{11}\) to verify their existence.

\(^\text{11}\) Some of the response patterns in the actual survey questions allow choices that range from highest to lowest while others range from lowest to highest. For reporting purposes, when statistical comparisons are made, the statement of a relationship explains the nature of the association without employing plus or minus signs.
Three themes or commonalities were found to exist between the students’ abilities, experiences and decision-making.

Relationships between numbers of textbooks bought and money received or spent.

There was a relatively strong relationship between students’ responses to questions about the number of books they bought and the amount of money spent for books. This finding is not surprising since, if the students bought fewer books then, ultimately they would spend less money.

Similar logic applies to the patterns also found to exist for the amount of financial aid students received for books and the students’ decisions not to register for a course, or not buy the book. For example, if a student did not register for a course, they would not have spent money for a book or purchased as many books.

Negative consequences of textbook costs (withdrawal or failure of a course).

The study attempted to look at possible negative consequences associated with textbook costs and found that student withdrawal from a course was moderately correlated with the cost of textbooks as well as their decision to not buy the book.

When students did not buy the book due to cost of the textbook, they also were found to be more likely to fail the course ($r = .368, p < .001$). This statistical analysis controlled for the relative cost of textbooks in order to allow examination of the relationship between students’ decisions not to buy the textbook.

Withdrawal from courses was also associated with student course failure ($r = .526, p < .001$). This could be due to the fact that students withdrew when failing courses. For example, the deadline for withdrawal from the course without penalty had passed, and as a consequence they failed when withdrawing.

Controlling for the level of textbook cost, a moderately strong relationship was found to exist between the answers of “the cost of required textbooks has caused me not to register for a course” and “the cost of required textbooks has caused me to fail a course” ($r = .372, p < .001$). One can speculate that this relationship involves a situation in which students may be discouraged from registering for courses because of the fear of failure in other classes when failure had been the result previously. The cost of textbooks is exacerbated by the experiences
reported by students that they are frequently or occasionally required to buy unnecessary books not used in their classes.

*Technological familiarity and proficiency and acceptance of electronic materials.*

Statistically significant relationships were found between questions related to electronic/digital and online materials. This was primarily due to the apparent commonality of technological familiarity and proficiency of students. It appears that:

- Students’ expressed willingness to buy electronic textbooks if it saved them money was moderately positively related to their use of e-books for personal use ($r = .524$, $p < .001$).

- Student knowledge of and selections about the format of and their preferences for different features in electronic materials, were found to also be moderately positively related to their willingness to pay between $5 and $10 for keeping the content current developing and open textbooks.

- Those students who reported that they frequently read e-books were significantly more likely to favor a variety of textbook formats ($r = .266$, $p < .01$) and to be willing to buy electronic textbooks ($r = .342$, $p < .001$).

*Limitations of the study*

This research was based upon voluntary online survey participation, and it offers a reasonable representation of Florida’s university and college students and suggests that the range of areas covered in the sample incorporated views of large and small, urban and rural institutions. However, the non-random selection of the participants and the focus on higher education in Florida limits the generalization of the results of the survey to the Florida higher education students who participated.
Conclusions and Implications

This study was designed to learn more about the current cost consequences, acquisition preferences, format and function preferences, and use of textbooks and ancillaries that higher education students reported in view of increasing textbook costs and technological innovations. As higher education professionals gain awareness and understanding of these issues and challenges, they will be able to anticipate and prepare for the changes, innovations, and improvements that are necessary to educate young adults.

The results indicate that there were some significant differences between students enrolled at a university or college, enrolled full-time or part-time, and the credit hours students had earned toward their degree (0-60 or 61-120). These characteristics varied with regard to how the students in those areas addressed textbook costs, use, and experiences with texts and other educational resources.

Influential relationships between major demographic variables and student behaviors

Type of institution attended, full-time or part-time enrollment status, and hours completed toward a degree were found to shed light on student behaviors and responses. Even so, most of the relationships were weak to moderate.

a. Full-time vs. part-time enrollment
   - Full-time students reported greater frequency of not buying the required textbook than part-time students.
   - Full-time students reported spending more money on textbooks than part-time students.
   - Part-time students reported greater frequency of not registering for a course because of the cost of required books.
   - Full-time students reported being required to purchase a textbook that was not used in the class with a higher frequency than part-time students.

b. College vs. university enrollment
   - University students reported a higher frequency of not buying a required textbook than students enrolled in colleges.
• University students reported using more measures to reduce textbook costs than college students.

• College students reported higher frequency of not registering for a course due to textbook cost than university students.

c. Hours completed toward a degree: 0-60 vs. 61-120+

• Students who had completed 61-120+ hours reported more frequently having to purchase a textbook that was not used than students who had completed 0-60 hours.

• Students who had completed 61-120+ hours reported taking more measures to reduce textbook costs than students who had completed 0-60 hours.

• Students who had completed 61-120+ hours reported not purchasing a textbook for a course because of cost more frequently than those who had completed 0-60 hours.

Based upon analysis for possible relationships between area of study and other student responses and behaviors, the study found few significant differences across disciplines in which students majored.

Other behavior - financial aid

While a majority of participants were enrolled full-time, a sizable proportion received no financial aid for educational textbooks. University level students received the highest proportions of financial aid funding for textbooks.

Textbook expenses

Total expenses for textbooks were more in the midrange for college students than for university students, while university students paid higher amounts for textbooks. This could be due to the focus within specific discipline areas for which more complex, specialized and expensive texts are required for higher-level courses.

The negative consequences that students reported as a result of textbook cost, i.e., having to withdraw from courses or failing because they could not afford books, or even not enrolling in classes that they may have needed or wanted suggest that the magnitude of the problem impinges substantially on the ability of students to complete their education in a timely manner. These effects may have ramifications for students’ disciplinary choices and for successful completion of their college degrees.
An important finding of the study is that students are willing to pay between 5 and 10 dollars per open textbook they use, as a way of contributing to the creation and maintenance of up-to-date textbooks and to reduce the overall costs of textbooks. This finding signals encouragement from students for developing plans to assure development and availability of textbooks at a more modest cost.

**Purchasing behavior**

The data show that students attending universities, which offer a higher proportion of upper division courses than colleges, more often do not buy the textbook or instead buy used books. These findings could indicate that upper division students have learned alternative ways to maneuver through the difficulties of the costs of a higher education because they have had more years of experience than some of their college counterparts. These alternative ways could include copying sections of a book, digitizing sections, capturing the image of a page that cannot be downloaded, or it may be that students have just learned how to determine whether having the textbook will or will not significantly impact their grades.

Differences in the numbers of textbooks purchased by students at universities may also be a reflection of the fact that higher level academic courses regularly require more textbooks and more expensive textbooks. Interestingly, the data show that the Arts, Humanities, Social Sciences group, on average, purchased more textbooks than did Science, Engineering and Business students. However, textbooks for the Sciences and Business were more costly for fewer books.

Findings in the literature show that some libraries in higher education institutions offer digital access to electronic books, textbooks, and professional and scholarly journals (Educause, 2010). However, more data should be collected to learn the number of libraries in higher education institutions who lend electronic textbooks to students and how their availability is publicized to students and faculty. Data on library lending of electronic textbooks could assist educators in understanding the low proportion of students who showed knowledge that their libraries lend such books. Library lending of electronic textbooks could provide special assistance to those students who could not otherwise afford to purchase their books.
An additional finding of this survey is that students want to have choices in the formats of their textbooks. Presently the majority of students desire to have the availability of print versions and the ability to print all or part of electronic versions. Whether or not this preference will change is uncertain, as students enter institutions of higher education with increasing exposure to electronic textbooks and eReaders. However, the greater openness shown by the students who had completed 0-60 hours toward their degree, compared to those who had completed 61-120+ hours, foreshadows increased willingness of future students to use digital educational resources.

What Is the Future of Electronic Educational Materials?

The results of this survey reinforce the importance of improving technology to open options for students to access digital materials, free or low cost textbooks and use of emerging innovations of electronic educational resources. Future activities in the development of digital educational resources should capitalize on the students’ openness to the wide variety of learning options and opportunities. Practitioners in the field of higher education must increase their flexibility and enhance their ability to respond to digital educational resources. These needs must be technologically and pedagogically sound, and accommodate students with special needs.

The results of the survey also provide insights into what types of actions could be taken to effect change in the educational environment. They include:

- Find and develop more economical and higher quality learning materials that address the diversity of the learning requirements of the different disciplines and the learned capabilities that are expected of well-trained graduates.
- Find more ways to generate state, institutional, faculty, and financial support for the development and maintenance of open textbooks.
- Encourage faculty and departments careful attention to assigning required textbooks to prevent student expenditures on unnecessary textbooks.
- Increase efforts to seek authors and specialists to prepare textbooks for general education courses as well as more specialized, higher-level courses. For authors to produce textbooks, their efforts must be rewarded and considered important contributions to their fields. Thus, higher education administrators and faculty must acknowledge the value of developing open and digital educational resources as part of the publication portfolio.
• Educate student on the benefits of digital resources and eBooks, and the availability of library lending of digital textbooks.

• Inform students on what is meant by the term open textbooks, their features, the financial benefits to students, and the unique ability for faculty to modify an open textbook to suit the needs of the learners in a particular class.

In summary, this study has documented the fact that students of higher education are challenged by the costs of their education, and that their specific experiences of meeting those challenges have created difficulties in meeting their educational goals. It also provides evidence of how students are resourceful in addressing these challenges. Today’s high school students are already using digital materials and technologies. As they move into college, it is imperative that higher education leadership addresses the demand for and opportunities offered by open and digital educational resources and textbooks.
References


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