

## DIFFERENCES IN QUANTITATIVE AND QUALITATIVE PROFESSORS' CRITERIA FOR TEXTBOOK ADOPTIONS: A PILOT STUDY

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### ABSTRACT

*Textbooks are an integral component of the higher education process. This pilot study examined the differences in quantitative faculty and qualitative faculty's ratings on factors influencing the textbook selection process and various marketing techniques used by publishers to encourage adoption. A total of 1398 faculty responded to the Internet survey-681 were quantitative faculty and 717 were qualitative faculty. Overall results indicate that content, ancillary materials, edition of text, and textbook costs are the primary drivers of adoption. Examination copies and contact by book reps were the best methods of encouraging faculty to examine a new textbook. However, there were significant differences between quantitative faculty and qualitative faculty on selection criteria.*

**Keywords:** Textbook adoption criteria

### INTRODUCTION

Textbooks are an integral part of higher education ranging from supplemental use by some instructors to the unitary instructional forum for a correspondence course. For most college courses, textbooks form a critical foundation, whether the course is being taught as a straight lecture course or as an online course. It has been estimated that textbooks provide 75 to 90 percent of classroom instruction [3]. Because of a textbook's integral role in the instructional process, most college professors spend considerable time in selecting the appropriate text for the class. While antidotal evidence provides information as to the selection criteria used, very little empirical research has been found in the area of textbook adoption, especially by qualitative professors [2]. Textbook publishing is a highly competitive industry with publishers vying for adoption commitments from professors. College textbook net sales in for the first quarter of 2005 totaled \$174.4 million [4]. As with most industries, consolidations have reduced the number of publishers within the industry resulting in intensified competition among the remaining firms. With increasing pressures to earn profits, which means selling more books, publishers are looking for new and creative ways to market their textbooks.

On the other side of the sales equation are the students. Since the 1987-88 academic year, the prices of college textbooks and supplies have averaged a 6% annual increase, which is twice the annual inflation rate. At the same time, however, college tuitions have averaged a 7% annual increase. The average cost of textbooks per semester, according to the U.S. Government Accountability Office (GAO), is \$898. This is about 26% of the cost of tuition and fees at a public university and approximately 8% of the cost of tuition and fees at a private institution [1]. To combat the high cost of textbooks, students are turning to alternative methods. A survey by the National Association of College Stores found that only 43 percent of students buy the required books for their courses (Carlson 2005). Many students either borrow a textbook from a friend who took the class or students share a textbook. Alternatively, some students are turning to online texts. Approximately 11% of the students surveyed said they preferred online versions, versus 73% for traditional texts [1].

Enter into this complex picture another player, the used textbook wholesaler. Purchasing used textbooks from students, college bookstores, and professors, the used textbook market is thriving. With costs of used textbooks from 25% to 50% below the retail price of a new book, students consistently purchase used texts before shelling out the money needed for a new book.

These phenomena has created a unique competitive environment among college textbook publishers, used textbook wholesalers, students, and professors. Used textbook dealers have set up a comprehensive system of buying and selling used texts across the country at high margins, which pushes down the demand for new textbooks. At the same time, less than 50% of students are purchasing the required textbooks, again, pushing down demand, for both new and used books. Professors, relying on the instructional value of textbooks, continue to assign them as required reading in courses with the expectations that students will purchase or have a textbook of their own to use during the course.

In response to this situation, textbook publishers have been accused of utilizing tactics that actually increase the cost of textbooks, rather than reduce the costs. First, publishers continue to add extras such as CDs,

workbooks, and online material, which drive up the cost of producing the text, and in turn drive up the cost of the new text. Second, publishers are producing new editions of a text on a more frequent schedule and encouraging professors to adopt the new edition in order to combat the used textbook market. Both tactics require additional investments by publishers that have to be recouped within a shorter time frame, thus increasing the cost of texts.

Publishers invest considerable marketing dollars to encourage professors to examine and adopt their particular textbooks. Not only have marketing budgets increased, but also publishers continually look for more effective means of promoting their texts. Understanding the criteria and methodologies used by professors in the textbook adoption process would be valuable to publishers and could be an impetus to reduce the current competitive rivalry. Wiser use of marketing and sales dollars could result in reduced costs and/or more effective textbook promotions.

The only published study that examines the process for textbook adoption was in 1997 by Smith and DeRidder [2]. The study examined the general criteria of textbook selection and publisher incentives in the adoption process of quantitative textbooks. While information is pertinent to textbook adoption in general, it does not address the criteria used by qualitative professors, which may or may not be the same criteria used by quantitative professors. In the Smith and DeRidder study, the top five criteria used in textbook selection were 1) comprehensibility to students, 2) timeless of text material, 3) compatibility between the text and homework problems, 4) exposition of quality of text, and 5) solutions manual. Other relevant criteria included the computerized test bank (ranked 8<sup>th</sup>), the cost to students (ranked 9<sup>th</sup>), instructor's teaching guide (rank 12<sup>th</sup>), and computerized practice set (rank 13<sup>th</sup>).

Because very little empirical research has examined the criteria for textbook selection and the promotional methods used by college textbook publishers, a pilot study was conducted as an initial step in understanding this process. By matching selection criteria and promotional methodologies of textbook publishers to college professors' adoption processes, the effectiveness of both will be enhanced.

### **THE STUDY**

The study was conducted using Internet survey methodology. Initially, faculty were broadly categorized either as a quantitative or qualitative faculty based primarily on their teaching areas. Obviously, at some level, all faculty are quantitative due to the research

nature of academia; however, teaching material can be classified as either quantitative or qualitative. Quantitative faculty included the areas of accounting, economics, finance, and quantitative methods. Qualitative faculty included the areas of information systems, entrepreneurship, general business, management, and marketing.

A sample of 10,122 qualitative professors and 8,277 quantitative professors were selected from universities throughout the United States by accessing the university's website. These individuals were sent an e-mail explaining the purpose of the study and a link to click on if they wanted to participate. Of the 10,122 e-mails sent to qualitative faculty, 1,118 were returned due for various reasons such as wrong e-mail address, insufficient e-mail address, or the e-mail was viewed as SPAM by the university's e-mail filter system. Thus, out of the 9,004 e-mails that were delivered, 717 responded, yielding a response rate of 7.96%. Of the 8,277 emails sent to quantitative faculty, 724 were returned, 7,553 were delivered and 681 responded for a 9.02% response rate.

The survey consisted of 15 questions addressing the topic of textbook adoption and 5 demographic-related questions. A 5-point rating scale was used to measure the importance of criteria, such as content, cost, and ancillary materials, in the selection of a textbook. Because of the importance of ancillary materials and the investment by publishers in developing ancillaries, a separate question dealt with the importance of ancillaries, such as the test bank and PowerPoint slides, and the relative importance of these items in electronic and/or online formats.

A five-point rating scale was used to ask about the influence of the reputation of the textbook authors and how important a personal acquaintance was with the author(s) on the adoption process. Additional questions addressed the issues of why professors switch textbooks and how long they stay with a textbook before switching.

The next section of the questionnaire dealt with the promotion of textbooks, both from the professor's selection viewpoint and the publisher's promotion viewpoint. Again, a 5-point rating scale was used to evaluate various methods, such as e-mail, direct mail, and telephone, which professors utilize to learn about a new textbook. In terms of being contacted by publishers, questions were asked concerning how book reps contact them, how often they are contacted, and how often they would like to be contacted. The last part of the questionnaire examined various methods publishers use to promote new textbooks, such as direct mail, e-mail, telephone, and personal visits from book reps.

## THE RESULTS

Table 1 provides the sample characteristics. A total of 1398 usable surveys were received. Of these, 681 were from quantitative faculty and 717 were from qualitative faculty. As is shown in this table, the two groups of respondents were fairly well matched in terms of teaching experience, rank, and institutional enrollment.

**Table 1.** Sample Characteristics

Demographic Variable	Classification	Quantitative	Qualitative
Teaching experience	Less than 5 years	7.5%	9.2%
	6-10 years	16.8%	19.7%
	11-15 years	15.6%	16.6%
	16-20 years	13.4%	14.5%
	More than 20 years	46.8%	40.0%
Current rank	Adjunct or instructor	9.4%	9.0%
	Assistant professor	22.0%	24.3%
	Associate professor	33.1%	29.4%
	Full professor	35.4%	37.2%
Institution's enrollment	0-4,999	23.2%	19.6%
	5,000 to 9,999	20.5%	25.6%
	10,000 to 14,999	17.3%	14.9%
	15,000 to 19,999	12.1%	12.8%
	20,000 to 24,999	10.8%	10.1%
	25,000 or more	16.1%	17.0%
Sample size (Total 1398)		N=681	N=717

The relative importance of various criteria used in the textbook adoption process was measured using a 5-point rating scale anchored by very important and very unimportant. The results are listed in Table 2.

**Table 2.** Criteria in Decision to Adopt a Textbook

Variable	Quantitative	Qualitative	t-value	p-value
Content of text	4.86	4.85	0.135	.893
Ancillary materials	3.79	3.83	0.688	.492
Edition of text	3.66	3.54	1.831	.067
<b>Cost of text</b>	3.39	<b>3.68</b>	5.489	.000
<b>Length of text</b>	3.32	<b>3.49</b>	3.485	.001
Author(s) of text	2.96	3.02	0.924	.356
Online and hard copy of text	2.52	2.59	1.034	.301
Advertising of text	1.96	1.88	1.579	.115
Online text only	1.91	1.94	0.527	.598

While there were similarities in criteria used in selecting a textbook, there were significant differences between the two groups on several selection criteria. Qualitative faculty rated the cost of the text and length significantly higher than quantitative faculty.

The cost of the text for students was ranked as the 3<sup>rd</sup> most important criteria by qualitative faculty and 4<sup>th</sup> by quantitative faculty. This finding is consistent with the Smith and DeRidder (1997) study. Cost ranked 9<sup>th</sup> in their study with a mean of 3.98 on a 7-point scale. Converted to a 5-point scale, the mean in the Smith and DeRidder (1997) study would be equivalent to 2.84 in this study. The 3.39 mean for quantitative faculty indicates that the cost of the text for students has definitely increased in importance to quantitative faculty. It is highly likely that professors today are concerned about the increasing costs of textbooks and have heard the outcry voiced by students.

Two additional questions were asked about authorship. The first asked about the importance of the author(s) reputation; the second about being personally acquainted with the author(s). Both quantitative and qualitative professors rated reputation of the author higher than acquaintance with the author.

**Table 3.** Reputation and Acquaintance with Author(s)

Variable	Quantitative	Qualitative	t-value	p-value
Reputation of author(s)	3.06	3.11	0.901	.368
Acquaintance with author(s)	1.97	2.06	1.381	.168

With publishers offering more and technology-enhanced

ancillary materials, the next section of the study examined the various ancillary materials and how important each was in the selection process. The results are listed in Table 4. As is shown in the table, there were significant differences between the two groups in the rating of these items. Qualitative faculty rated the availability of cases and basic PowerPoint slides and video enhanced Powerpoint slides significantly higher than quantitative faculty. On the other hand, quantitative faculty rated instructor's manual on CD, hard copy of the instructor's manual, CD for students, online student quizzes, and online testing higher than qualitative faculty.

**Table 4.** Importance of Various Ancillaries to Adopt a Textbook

Variable	Quantitative	Qualitative	t-value	p-value
<b>Instructor's Manual on CD</b>	<b>3.54</b>	3.39	2.018	.044
Electronic test bank	3.51	3.40	1.299	.194
<b>Cases</b>	3.36	<b>3.67</b>	4.930	.000
Hard copy of Instructor's Manual	3.16	3.14	0.258	.797
<b>Basic PPT slides</b>	2.97	<b>3.58</b>	7.989	.000
<b>Hard copy of test bank</b>	<b>2.94</b>	2.74	2.607	.009
Online class material	2.79	2.70	1.387	.166
<b>CD for students</b>	<b>2.66</b>	2.49	2.661	.008
<b>Online student quizzes</b>	<b>2.64</b>	2.42	3.243	.001
<b>Video-enhanced PPT</b>	2.44	<b>3.07</b>	9.410	.000
<b>Online testing</b>	<b>2.29</b>	2.10	2.937	.003

Surprisingly, cases were ranked 1<sup>st</sup> in importance for qualitative faculty and 3<sup>rd</sup> for quantitative faculty. The questionnaire did not pursue what type of cases or in which courses cases are desired. Certainly, future studies will want to address this issue. One of the primary purposes of a pilot study is to produce information that should be explored in greater depth.

As texts move into new editions, the length of textbooks tends to grow with each new edition. So, on one hand, professors are concerned about the growing length of a textbook, but on the other hand are also concerned about the edition of the textbook, especially quantitative faculty. As a general rule, higher editions of a textbook indicate that peers have accepted the textbook. As is shown in Table 5, quantitative professors appear to be more resistant to first editions. When asked if they were leery about adopting a first edition, only 32.2 % of the quantitative professors said they were not at all leery

while 59.2% of the qualitative faculty were not at all leery about adopting a first edition. The differences were significant at the .000 level.

**Table 5.** Leery About Adopting First Edition

Are you generally leery?	Quantitative	Qualitative	t-value	p-value
Not at all	32.2%	59.2%		
Somewhat	48.1%	33.9%		
Definitely yes	19.8%	6.9%		
Mean response	<b>1.88</b>	1.48	11.15	.000

Table 6 provides a list of the various reasons for switching textbooks. The top two reasons for qualitative professors was the content of a new text and a new textbook being better suited for the professor's teaching style. The top two reasons for quantitative faculty were content of a new text and being unhappy with the current text. The percent choosing the other reasons was fairly consistent between the two groups.

**Table 6.** Reasons for Switching Textbooks

Reason	Quantitative	Qualitative
Content of new text	67.0%	66.2%
Unhappy with current text	63.7%	54.8%
New textbook better suited to my teaching style	57.3%	62.6%
New edition of current text coming out and want to change	50.4%	50.1%
Better ancillary materials with new text	31.7%	36.7%
Dissatisfied with ancillary materials	29.4%	32.8%
Unhappy with publisher	17.9%	15.8%

With many textbooks on a 3-year cycle, it is not surprising that the majority of the both groups said they switch every 3 years or less (see Table 7). It appears that quantitative faculty may use a textbook longer than qualitative faculty. This may be due to how rapidly changes are taking place in the discipline.

**Table 7.** Frequency in Switching Textbooks

Frequency	Quantitative	Qualitative	t-value	p-value
Once a year	1.6%	2.4%		
Every two years	16.5%	28.3%		
Every three years	42.1%	38.8%		
Every four years	9.1%	10.1%		
Every five years	8.6%	5.7%		
Longer than five years	22.0%	14.8%		
Mean response	<b>3.73</b>	3.33	5.198	.000

The last part of the questionnaire addressed the promotional aspect of textbooks in terms of how professors gain knowledge of new texts, what type of marketing approach professors prefer, and how it relates to what publishers are currently doing. This first question in this section addressed the various promotional methodologies professors utilize to learn about new textbooks in their field. Results are listed in Table 8.

**Table 8.** Learning about New Textbook

Variable	Quantitative	Qualitative	t-value	p-value
<b>Examination copy</b>	4.62	<b>4.71</b>	2.603	.009
Contact by book rep	3.62	3.69	1.149	.251
<b>Booth displays (conference)</b>	<b>3.35</b>	3.16	3.055	.002
Publisher's website	3.17	3.16	0.144	.886
<b>Direct mail</b>	3.16	<b>3.32</b>	2.579	.010
E-mail	3.03	3.09	0.911	.362
Advertising in media	2.21	2.21	0.029	.977
Telephone	1.73	1.66	1.232	.218

The most desirable method, by far, was an examination copy of the new text. This was rated even higher by qualitative faculty than quantitative faculty. Contact by a book rep was second for both groups. For quantitative

faculty, booth displays at conferences were rated third while qualitative faculty rated direct mail third. Examination copies and direct mail promotions were rated significantly higher by qualitative faculty while booth displays was rated higher by quantitative faculty. Advertising in media and telephone calls were rated lowest by both groups of respondents.

Direct mail is often used to inform professors about new textbooks. The two most common forms of direct mail are a specific promotional piece advertising only one text and a multiple book promotion that describes several new books offered by the publisher. The data indicate that specific book promotions are more helpful than multiple book promotions (see Table 9). Qualitative professors rated multiple book promotions significantly higher than quantitative professors.

**Table 9.** Direct Mail Promotions from Publishers

Variable	Quantitative	Qualitative	t-value	p-value
Specific book promotions	3.21	3.32	1.61	.11
<b>Multiple book promotions</b>	2.66	<b>2.84</b>	2.68	.08

As with any product, the challenge facing textbook publishers is getting professors to look at a new text. Like many products, if the book is examined, the probability of purchase, or in this case adoption, greatly increases. Seven types of textbook marketing techniques designed to encourage instructors to take a closer look at a new text were examined. Results are provided in Table 10.

**Table 10.** Book Promotions That Encourage Closer Look at New Text

Variable	Quantitative	Qualitative	t-value	P-value
<b>Examination copy</b>	4.66	<b>4.78</b>	3.456	.001
Contact by book rep	3.79	3.84	0.902	.367
<b>Direct mail</b>	3.13	<b>3.31</b>	2.795	.005
E-mail	2.94	3.00	1.003	.316
Publisher's website	2.75	2.76	0.207	.836
Telephone	1.99	1.92	1.315	.189
Magazine	1.99	1.95	0.809	.419

Based on previous results discussed, it is not surprising that the most effective means of encouraging a professor to take a closer look at a new text is an examination copy followed by contact from a book rep. Qualitative faculty

rated examination copies and direct mail significantly higher than quantitative faculty as a promotional technique that would get them to take a closer look at a new text. While telephone and magazine promotions were rated lower by both groups, they were rated higher by quantitative faculty than by qualitative faculty.

With the advent of the web, many companies, including publishers, are making greater use of their website. With this in mind, instructors were asked if they visit the publisher's website in the process of selecting a new text. Forty percent (40.3%) of the qualitative faculty and 47.4% of the quantitative faculty said they always access the publisher's website when reviewing a new textbook (see Table 11). Forty-five percent of the qualitative faculty and 40.5% of the quantitative faculty will occasionally access the publisher's website and 14.7% and 12.1% respectively, never do. This indicates that websites are being used by both groups and extensively by quantitative faculty in new textbook evaluation process.

**Table 11.** Accessing Publisher's Website When Selecting Textbook

How often access?	Quantitative	Qualitative
Every time select a text	47.4%	40.3%
Occasionally when selecting text	40.5%	45.0%
Never when selecting text	12.1%	14.7%

### CONCLUSIONS

This pilot study provides valuable information in terms of how quantitative and qualitative professors adopt textbooks and how they view marketing methods being used by textbook publishers. Clearly, the most effective method of encouraging faculty to adopt a new text is to get the new book into their hands so they can examine the book. Because content is extremely important, a professor needs to examine the text to determine what is presented in the book and how it is presented.

Textbook publishers have been criticized for adding unused ancillaries to textbooks to drive the price up. One survey of university faculty indicated 65% rarely or never use the extra materials being provided (University Press 2004). However, this study confirms the importance of ancillary materials in the adoption process. Textbook publishers are correct in placing a heavy emphasis on ancillaries. But what may be misdirected is the type and quantity of ancillaries. This study would indicate faculty desire high quality basic ancillaries, such as the basic PowerPoint slides, electronic test bank, and instructor manual's on CD. Rather than adding additional ancillary

materials, publishers may gain more favor with faculty by enhancing the current ancillaries. Thus, adding 100 more questions per chapter to an electronic test bank may be more advantageous than adding extra online material that can be utilized in the course. Certainly, future studies need to be conducted in the area of ancillaries to determine the thoughts of professors on what is desired and how much. Issues of quality also need to be examined.

When professors do switch textbooks, it is almost always due to more desirable content of a new book or dissatisfaction with the content of the current text. Less frequently are faculty members dissatisfied with the ancillary materials or switch to a new book because it has better ancillary materials. In addition, the most likely time for switching is when their current text is entering a new edition. Thus, timing is critical. Examination copies received at the right time enhances the probability of adoption, while copies received at other times is likely to be set aside or end up in the used textbook market.

Direct mail promotions can be an effective promotional method, if the piece discusses only one textbook. The promotional flyers or magazines that describe multiple books are not nearly as effective in encouraging professors to consider a new book. Next to receiving an examination copy of the text and contact by the book rep, direct mail is an effective means of learning about new books. Over 50% of the respondents in this study indicated it was a desirable method. It is more effective than booth displays at conferences. While participants at a conference can examine books at a booth, not all conferences are attended by publishers and not all faculty members attend conferences. Thus, learning about new books at a conference is not a consistent methodology.

The last important issue found in this study is the cost of the text for students. Because of increased costs for textbooks and tuition, students have complained. In many localities, the local media has echoed this sentiment, as well as parents. University faculty appear to have heard the message. Cost is now the third most important criteria in the selection of a book, close behind ancillary materials.

Textbook publishers need to take notice. Instead of adding more costs through additional ancillary materials, perhaps the companies need to look for means of reducing the costs of what is currently on the market. If not, it is highly possible that new upstart companies like Atomic Dog may capture a larger percentage of the textbook market. Atomic Dog is a new publisher that produces online and accompanying paperback copies of a text for considerably lower price than mainstream publishers (Carlson 2005). As more faculty members

empathize with students, more will look for ways to reduce their student's textbook costs.

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