

A Comparison of the Readability of Marketing Research Textbooks and Commercial Marketing Research White Papers

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At graduation, marketing students are expected to have basic marketing research skills. Although most will not enter marketing research careers, many will be required to interpret research and apply that knowledge to solve problems or recognize market opportunities. We compare the readability of several marketing research textbooks and professional research papers. In this study, the majority of books are written at an undergraduate level, while the majority of professional papers are written at the graduate level. Results suggest that attention should be given to readability as one variable in the teaching and learning environment to improve student skills upon graduation.

INTRODUCTION

Concern over the decline in reading and writing skills for high school students has been a topic of discussion in academia for years. In 2007, the National Endowment for the Arts published an analysis of several national studies on reading in American life. This study concluded that Americans are spending less time reading and reading comprehension skills are eroding. The study further indicates that only slightly more than one-third (35%) of high school seniors now read proficiently (a score of at least 302 out of 500). Unfortunately, reading scores have also declined in adults at all educational levels. Scores for adults with a bachelor's degree declined 11 points (from 325 to 314) from 1992 to 2003 and adults with graduate study/degrees declined by 13 points (from 340 to 327). These dismal figures have long-term implications for employers. In fact, employers rank reading and writing as top deficiencies in new hires (Conference Board, 2006).

The declines in the reading skills of high school students should be a concern to marketing educators. Many of these high school students enter college and marketing classrooms. It is important to determine not only if students have textbooks and material they can comprehend, but also that they are able to understand business communications once employed after graduation. The purpose of this research is to determine if marketing research textbooks are at the appropriate level and preparing students for the level of readability required in their professional marketing careers. Textbooks for Marketing Research are selected for this study as this is generally considered one of the more difficult courses in the marketing curriculum and one of the last courses taken in the marketing program.

This paper first will review relevant literature on readability and present the research hypotheses. The following sections describe the data collection and results of analyses. The final section discusses the implication of the results for higher education.

LITERATURE REVIEW

Communication is the basis for much of marketing application and practice. As such, readability of communications provided to customers has been examined in previous studies. Consumer contracts (Funkhouser, 1983), sales training manuals (Kaminski, 1987), direct mail (Beard & Williams, 1988), trade journal advertisements and journals (Clark, Kaminski, & Brown, 1990), and direct-to-consumer advertising for prescription drugs (Sheehan, 2006) have been studied with the goal of using readability to increase the effectiveness of communication. More recently, readability for business-to-business (B2B) websites has also been studied. Leong, Ewing, and Pitt (2002) suggest the readability formula can be used to evaluate competitive websites and assist in providing quick feedback on sentence length, proportion of difficult words, and polysyllabic words.

Academics have also focused on the readability of their own research in terms of the usefulness for practitioners. For example, the *Journal of Marketing* has become significantly more difficult to read as measured by the Flesch Reading Ease formula (Bauerly, Johnson, & Singh, 2006). However, good writing does make a difference and is appreciated. A study of four marketing journals, *Journal of Marketing*, *Journal of Marketing Research*, *Journal of International Marketing*, and *Journal of Public Policy, and Marketing*, indicated that award-winning articles are more readable (Sawyer, Laran, & Xu, 2008).

Principles of marketing, marketing research, consumer behavior, and marketing management textbooks were evaluated for readability by Shuptrine and Lichtenstein (1985). Out of the twenty-three textbooks evaluated, only nine were at the grade level of a junior or senior in college. Interestingly, four of the five marketing research texts were considered graduate level using the Dale-Chall Method and all five were at the college senior or graduate level using the Flesch Reading Ease measurement. Considering that this study is almost thirty years old and given that student reading skills have decreased, it is time to revisit the readability issue for marketing textbooks. According to Schneider and Reed, "...selecting a text at an appropriate readability level could increase students' interest. Students who find the text difficult are likely to avoid reading, whereas strong readers may perceive a text and the course as elementary" (2009, p. 362), and loose interest.

Shuptrine and Lichtenstein (1985) noted that if textbooks are difficult to understand from the student's view, more explanation is necessary from the professor limiting time in the course for more in-depth discussion or supplemental projects. Although the study is dated, most professors will agree that the same is true today. According to McFall (2005) higher education institutions rely extensively on textbooks and evidence shows that students actually use their textbook. In a study of undergraduate accounting students, Phillips and Phillips (2007) found that more than 90% of the students in their study used their textbook when studying, even though the students in this study had purchased detailed class notes. They also found that "'strong' students (i.e., those who ranked in the top two quartiles of the class based on overall course grade)" (Phillips & Phillips, 2007, p.31) when confused, attempted to improve their understanding of the material by rereading the textbook. Therefore, in this research we seek to determine if the textbooks used in a Marketing Research class are appropriate for the level of the course, while still preparing students for the level of reading that is expected in the workplace.

Shuptrine and Lichtenstein (1985) examined textbooks for various marketing courses and determined that readability can vary between texts of various marketing courses. Although the courses (and the associated texts) for the Shuptrine and Lichtenstein (1985) study are not all at the same undergraduate level, we have no reason to believe that for a particular course the readability will be consistent among the available textbooks. Therefore, hypothesis one is (stated in alternate form):

H1: Not all marketing research textbooks are written at the same readability level.

Since Marketing Research is traditionally taken at or near the conclusion of a student's undergraduate program, we would also expect that the marketing research textbook would be designed to prepare students for the level of readability that is expected of marketing professionals. However, we have no reason to believe that they are the same; therefore, we develop two related hypotheses (stated in alternate form):

H2: Not all professional materials are written at the same readability level.

H3: The readability of some textbooks is different from the readability of some professional materials.

METHOD

The purpose of the study is to determine whether the reading level of several upper level, undergraduate marketing research textbooks vary; whether the reading level of several professional documents vary; and if reading level required in an upper-level marketing research course is preparing students for the level of reading that will be required when they enter the profession. According to Smith and Richardson (1999), readability formulas are the most common method for assessing readability. Readability formulas examine such factors as sentence length and syllables per word – measures that are easy to obtain and result in an objective evaluation of the reading material. While readability formulas do not address the content or format of the textbook, variables, which could affect the reader's comprehension, readability scores can help determine the appropriateness of a textbook for the intended reader. Although there are numerous methods for measuring readability, Chiang, Englebrecht, Phillips, and Wang (2008) examined readability scores based on the Flesch Reading Ease, Flesch-Kincaid Grade Level Index, Gunning's Fog Index, and the SMOG readability measures. Their research determined that the readability scores using several methods were highly correlated ($p < .0001$), therefore making it necessary to consider only one measure.

The Flesch Reading Ease formula was developed in 1948 by Rudolf Flesch and is one of the leading readability indexes. We chose to use the Flesch Reading Ease measure because of its ease of use and its extensive use in the readability literature (DuBay, 2004). The text samples for the current study are evaluated using Microsoft Word's Flesch Reading Ease software (FRE). Table 1 presents the ease of readability based on FRE scores - the lower the readability score, the more difficult the readability. According to Flesch (1951, p. 43) the scores can be translated into grade levels. A score of 30 to 50 indicates an undergraduate level of reading difficulty, and a score below 30 indicates a graduate level of reading difficulty. Since the textbooks used in this study are all undergraduate, but upper-level textbooks, we would expect that a Flesch score around 30 to 40 would be appropriate.

TABLE 1
INTERPRETATION OF THE FRE SCORE

Flesch score	0-30	30-50	50-60	60-70	70-80	80-90	90-100
Readability	Very Difficult	Difficult	Fairly Difficult	Standard	Fairly Easy	Easy	Very Easy

Source: Flesch (1949, p. 149).

The samples for our analysis include four undergraduate, marketing research textbooks and three commercially available marketing research papers. The books represent the most current editions available at the time of our analysis and are a representative sample of the (undergraduate) textbooks for Marketing Research. Because three of the texts have multiple authors, samples are extracted from each of the chapters of the textbook. Samples from the chapters did not include exhibits, tables, formulas, and other material not representative of the authors' style of writing. Flesch recommends that sample sizes be

at least 100 words. Our chapter samples ranged from 1,096 to 4,959 words – well above the minimum. Although there is some variance in readability of the chapters, Table 2 indicates the average FRE score for each textbook as well as the total sample size (in number of words) for each textbook. The readability of the Hair, Bush, and Ortinau text is the only book that falls in the "very difficult" level as defined by Flesch (1949), and therefore at the graduate level. The other three textbooks fall in the "difficult" reading level, which is defined by Flesch as the undergraduate level and in the range that we expected for this level of textbook (a score of 30-40).

TABLE 2
FRE SCORE FOR MARKETING RESEARCH TEXTS

Text	Title and Authors	Words	FRE Score	Difficulty Level
1	<i>Marketing Research</i> , 4 th Edition Joseph Hair, Jr., Robert Bush, David Ortinau	47,112	28.3	Very Difficult
2	<i>Marketing Research</i> , 8 th Edition Carl McDaniel	53,173	39.7	Difficult
3	<i>Essential of Marketing Research</i> , 4 th Edition William Zikmund and Barry Babin	37,046	36.8	Difficult
4	<i>Exploring Marketing Research</i> , 9th Edition William Zikmund and Barry Babin	58,126	37.5	Difficult

Three commercially available marketing research white papers were selected for the study—*African American Marketing in the United States*, *Trends Impacting Global Food and Beverage Brands*, and *The Growing “Out-of-Pocket” Healthcare Market*. This is a convenience sample and may not be representative of all marketing research papers. Because the reports may have multiple authors, text from each section of the report is used in this analysis to provide a more accurate description of the readability of the entire document. Samples for evaluation did not include exhibits, tables, formulas, and other material not representative of the authors’ style of writing. Sections of text that are presented in bullet points were not used in our analysis since these points were often not presented in complete sentences. The average readability scores for all three reports are at the level of either difficult or very difficult readability. Table 3 indicates the number of words selected from each document and the average Flesch Reading Ease Score for each document.

TABLE 3
FRE SCORE FOR MARKET RESEARCH WHITE PAPERS

Paper	Research White Paper Title	Words	FRE Score	Difficulty Level
A	<i>African American Marketing the United States</i>	21,479	23.7	Very Difficult
B	<i>Trends Impacting Global Food and Beverage Brands</i>	4,560	32.6	Difficult
C	<i>Growing “Out-of-Pocket” Healthcare Market.</i>	42,673	28.6	Very Difficult

The readability of Papers A and C fall in the "very difficult" level as defined by Flesch (1949), and therefore at the graduate level. The other paper falls in the “difficult” reading level, which is defined by Flesch as the undergraduate level (a score of 30-50).

RESULTS

Prior studies have used either parametric tests or non-parametric tests. According to Flory, Phillips, and Tassin, “Because the Flesch Reading Ease Formula used an averaging of words per sentence and number of syllables, the resulting scores are actually ordinal rankings, and the use of parametric tests is inappropriate.” (1992, p.153). Therefore, we choose to use non-parametric methods as the more conservative approach, although the results are not different in our study to those obtained using parametric methods.

We first examine the readability of the marketing textbooks. Although our initial examination shows that there is some variation in the readability scores (scores range from 28.3 to 39.7) our analysis will determine if there is a significant difference in the readability scores of the textbooks. The Kruskal-Wallis test examines the experiment-wise difference and reveals a significant difference in the readability of some of the textbooks ($p < .001$). Therefore, we can reject the null of H1 and determine there is some variation in the readability of the undergraduate, marketing research textbooks included in our study.

The results of the Mann-Whitney U test to examine all possible pairs, with a Bonferroni adjustment for multiple comparisons are presented in Table 4. The Bonferroni adjustment for 6 comparisons with the level of desired significance (in this case $\alpha = .05$) results in an adjusted significance level of 0.008 ($.05/6$).

TABLE 4
RESULTS OF MANN-WHITNEY U TEST WITH BONFERRONI ADJUSTMENT

Book	1 (FRE 28.3)	2	3
2 (FRE 39.7)	.000*		
3 (FRE 36.8)	.001*	.032	
4 (FRE 37.5)	.000*	.185	.602

* Indicates significance at the 0.05 level in a Mann–Whitney U test with a Bonferroni adjustment for 6 comparisons (i.e., a per-comparison significance level < 0.008).

As we expected because of the level of readability indicated by the FRE score, Text 1 is significantly different from all other textbooks in this study and classified according to the FRE score at the graduate level. The other three textbooks are not significantly different, all at a similar undergraduate level. Related to our first hypothesis, these results indicate that not all undergraduate textbooks are at the same level of readability. Although all are marketed as undergraduate textbooks, three are at undergraduate level of readability (textbooks 2, 3, and 4), while one (textbook 1) is at the graduate level of readability.

We next examine the readability of the research white papers. We have determined that there is significant variation in the textbooks examined in this study, and our initial examination shows that there is also some variation in the readability scores of the research white papers (scores range from 23.7 to 32.6) with papers at both the difficult and very difficult levels of readability according to the FRE scale. However, our analysis will determine if there is a significant difference in the readability scores of the white papers.

The Kruskal-Wallis test examines the experiment-wise difference and reveals an insignificant difference in the readability of the professional papers ($p = 0.09$) at our desired level of significance ($\alpha = .05$). Although the papers fall within different categories of reading difficulty, the differences are not statistically significant. Therefore, we fail to reject the null of H2.

Our last hypothesis (H3) examines whether there is a statistically significant difference in the readability of the textbooks and professional materials included in our study. The Kruskal-Wallis test examines the experiment-wise difference and reveals a significant difference in the readability of the textbooks and the professional papers ($p < .001$). Therefore, we can reject the null of H3 and determine that there are differences in the readability of the undergraduate, marketing research textbooks and the

professional papers included in our study with the professional papers written at a more difficult level of readability than the undergraduate textbooks.

CONCLUSION

Of course, in choosing a textbook, faculty consider other factors besides readability such as the availability of ancillary materials, instructor and student supplements, and online support materials. However, the readability of the textbook as well as the reading ability of the students should also be considered when choosing a textbook. Although some consider a lower readability level to be better for a textbook, one might argue that a textbook that does not challenge the student to improve their reading skills will not properly prepare them for a professional environment.

In this paper, we consider the material that students will be required to read and understand upon graduation. The analysis, while limited, indicates that some professional papers that presumably professionals with only an undergraduate degree will be required to read and understand, are actually written at a graduate level. Four of the five textbooks sampled for our study are written at an undergraduate level, while two of the three research papers were written at a graduate level. However, our research does not indicate if students can comprehend the material written at a higher level than their customary level. The ability to understand the professional papers may also depend on the students' ability to understand additional material in their business programs such as statistics, quantitative analysis, consumer behavior, and business-to-business marketing.

Readability is only one variable to consider in selecting textbooks. However, a textbook that is too difficult to understand frustrates both the student and the professor and may hinder the teaching and learning process. Additional research is needed to insure that students have appropriate learning materials and are subsequently able to perform at the level employers expect. Augmenting the text with professional research papers may assist in the learning process by allowing students to practice translating reports accurately. Future research might also examine methods to enhance student reading abilities and their effectiveness in an upper-level undergraduate program.

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