Content Analysis of Assessment Data in Marketing Education

Nicole Vowles
College of Business
Metropolitan State University of Denver, U.S.A.
Campus Box 79, P.O. Box 173362
Denver, CO 80217-3362
Email: nvowles@msudenver.edu

Alexandra Hutto
School of Business
Millersville University of Pennsylvania, U.S.A.

Peter Max M. Miller
School of Business
University of Phoenix, U.S.A.

Abstract

This study analyzes a sample of students' writing to assess their understanding of marketing concepts in the context of a Principles of Marketing course. Content analysis of pre- and post-essays was used to assess student knowledge of marketing concepts. The data was collected in Principles of Marketing classes. and highlight that many students bring an advertising and sales bias into the Principles of Marketing classroom and leave with stronger ideas of relationship and value. The infrequency with which both distribution and pricing are discussed in the essays highlights the need for additional emphasis in these areas. The methodology could be applied in a variety of marketing courses and range of applications for the purpose of course- or program-wide assurance of learning.

Key words: *Content analysis, assessment, assurance of learning, marketing, Principles of Marketing.*

Introduction

Assurance of learning (AoL) processes are crucial to business school accreditation and maintenance. For this reason, accreditation may sometimes feel like the driving force behind an AoL program. The actual purpose of an AoL program, though, is improving student learning through changes in curriculum and teaching (Goette et al., 2008). Assessment in marketing, though, 'has not progressed very far beyond exams, course evaluations and current student data' (Sampson & Betters-Reed 2008, 27). Another common issue with AoL is that data collection can feel 'forced' into a class. The purpose of this paper is to introduce a methodology that provides richer data than multiple choice tests for assurance *of* learning while also being valuable as an instructor's assessment *for* student learning in a class.

It seems clear that instructors frequently assess learning using student writing assignments. The instructor's reading of assignments may leave impressions of where students excel and the rubrics used for grading provide a measure of how well students complete the assignment, but a systematic analysis is needed to lead to a clear understanding of student learning and support revisions of the course or program. Assessment of qualitative data is not often used for formal program assessment; a methodology for doing this has not yet been discussed in the marketing education literature. The purpose of this project is to develop a process for analyzing student writing using content analysis to assess the baseline knowledge and the acquisition and change in their understanding of marketing concepts; the methodology is illustrated in the context of a Principles of Marketing course. The methodology development is based on an assignment for students to write pre- and post-course brief essays about their understanding of marketing.

The primary objective of this research is to create a methodology for assessing student knowledge using content analysis of essay writing. The secondary objectives, specific to the assignment used, are to (1) understand students' perspective of Marketing as they enter the Principles of Marketing course, and (2) gain insight into which marketing concepts students retain and understand as the end of the course.

Literature Review

While assessing student work in higher education courses is not a new concept, an emphasis on program-level assessment and curriculum change is relatively recent. The focus on assurance of learning is a significant trend in higher education; business schools must ensure the goal of students' learning as part of earning and maintaining accreditation, to meet legislative requirements, to demonstrate the quality of their programs, and to ensure continuous improvement (Zhu & McFarland, 2005). The incorporation of assessment in the learning standards of AACSB (AACSB, 2003) further elevated the continuous improvement of student learning as a central indicator of an excellent school of business. The resulting increase in assessment-focused research in the business discipline in the last decade has focused mainly around the development of assessment processes (for example, Zhu & McFarland, 2005) and the development of data collection methods (e.g., LaFleur et al., 2009; Weldy & Turnipseed 2010; Downey and Schetzsle, 2012).

Course-embedded assessments are one approach to collecting direct data for assurance of learning, and are often chosen for both the ease of implementation and usefulness (LaFleur et al., 2009). One strength of in-course assessment is that instructors are already using some form of assessment to grade students. Often these same assignments can be leveraged for program assessment purposes. The method of grading that works, though, may change based on the change in purpose, from grading to program assessment. One difficulty of course-embedded assessments is that these

measures generally do not address whether there is added value to student learning within the course (Michlitsch & Sidle, 2002). While some standardized tests include a pre-and post-measure, the 'pre' is at the beginning of a program and the 'post' is at the end (Michlitsch & Sidle, 2002), which is helpful in program assessment, but does not inform an instructor whether knowledge was gained as a result of the course. The pre- and post- approach to can be useful for course or program improvements.

Formats for course-embedded assessments can range from exams, presentations, and case studies, to more innovative formats such as managerial projects, role plays, and service projects (Weldy & Turnipseed, 2010). Multiple-choice exams are most heavily used, based on a survey of U.S. business schools (Michlitsch & Sidle, 2002), and are a valid approach to assessment that can provide insights across a number of topics with one tool. Exam questions are readily available via textbook support materials, and can be easily matched with the subjects of learning goals, implemented across sections of a course, and analyzed. Exams do not, however, provide deeper insights into how students are learning or where they are learning it. In addition, multiple choice exam questions may mostly fit in the lowest level of Bloom's taxonomy, 'Knowledge' (Bloom et al., 1956), or as 'Remembering' in the taxonomy as revised by Anderson et al. (2001). Remembering may not be the best measure for learning goals that aim for students to achieve a higher level of learning.

Evaluating student writing is an alternative course-embedded assessment method that can provide deeper insights within the setting of a particular course. In addition to the value student's gain in completing a writing assignment, their writing can be used as qualitative assessment data, giving the instructor insights regarding the level of understanding of course concepts. While content analysis has not been frequently discussed as a tool for assessment, Eder and Martell (2004, as reported in Sampson & Betters-Reed, 2008) include it as an acceptable measure of learning outcomes. Burgess (2014) uses content analysis of student reflection writing to assess learning in an experiential course. The shift from grading using a rubric to analyzing using content analysis represents a shift from assessment *for* learning to assurance *of* learning (Birenbaum et al., 2006).

Writing assignments can be constructed to assess learning at higher levels of Bloom's Taxonomy, in order to better match the learning goal. For example, in a study of MBA student learning conducted by Bagchi and Sharma (2014), a multiple choice quiz is classified as 'Knowledge' using Bloom's Taxonomy, while a quiz with open-ended written responses is classified as 'Comprehension', and case-based writing is deemed 'Application, Analysis, and Evaluation'.

One purpose of the assignment used for this study is to better understand the knowledge that students bring into their Principles of Marketing class. Extant literature touches on some misunderstandings of marketing from both the student and consumer perspectives. Ferrell and Gonzalez (2004) asked open-ended questions of Principles of Marketing students on the first day of the semester before the class was introduced. Using content analysis, the authors found that students mainly perceive marketing as selling, promotion, and advertising. While half of the students stated that marketing concepts are interesting or fun, almost half believed marketing to be a bad business practice.

Heath and Heath (2008) and Kachersky and Lerman (2013) employ content analyses as a means of understanding consumers' perceptions, attitudes and misconceptions of marketing. Some of these misconceptions included painting marketing as a blight on society that insidiously pushes materialism, forces consumers to be exposed to unwanted advertising, and leaves them to deal with manipulative tricks to buy things they do not need (Heath & Heath, 2008). Even those consumers who express positive feelings about marketing, usually with prompting, qualify them with reservations. For

example, consumers may concede that some advertisements evoke beauty and many products represent excellent craftsmanship, but they feel that marketers engineer consumers' desire to obtain these products. Kachersky and Lerman (2013) encountered consumers with a somewhat more positive outlook on marketing. In completing the statement 'Marketing is…' participants nearly uniformly viewed marketing as good for business; however, just over half of them considered it to be a less positive force in their own lives. The researchers characterize this as an asymmetrical view of marketing. In a follow-up experiment, Kachersky and Lerman (2013) discovered that consumers' perceptions were not intractable.

As these examples show, content analysis can be a useful tool in formulating a structured analysis of written work. The following sections discuss the process of applying content analysis for assurance of learning purposes.

Method

Data for the study was collected in one author's Principles of Marketing classes during a single semester at a public, urban university with a mixture of traditional and non-traditional students. Class sizes average approximately 40 students. The Principles of Marketing course is required for business majors, and students must be at a junior level before taking the course. The course is comprised of a mixture of lecture, discussion, small group application exercises and projects. Evaluation is a mixture of written assignments, a group marketing plan development project, participation, and short essay exams.

On the first day of class, students were given an assignment to write a brief essay on the subject 'What is My Definition of Marketing?' based on their own knowledge, experiences, and assumptions, without using secondary sources. The essay was due on the second day of class. At the end of the semester, students were asked to look back at their first essay and then write another essay on how their definition of marketing has changed, again without referring to secondary sources. This essay assignment is in keeping with similar content analysis studies with consumers where respondents were asked to complete the sentence 'Marketing is…' (Kachersky &Lerman, 2013, 546) and another where respondents were interviewed on their 'lived world' (Heath & Heath, 2008, 1029). The length of the brief essays ranged from a half-page to two pages.

The pre- and post- approach helps ensure that the knowledge being assessed is gained during the course. The instructor's objectives for the assignment are to (a) understand students' perspectives of and assumptions about marketing as they enter the Principles of Marketing course, and (b) gain insight into which marketing concepts students understand at the end of the course. From a learner-centered perspective, the assignment gives students an opportunity to summarize and reflect on what they have learned in the course. Reflection of what they have learned requires the students to expand on their knowledge of the marketing definition, to include the meaning of their experiences throughout the course (Lepianka, 2014). From an AoL perspective, the assessment can be used to assess a learning goal focused on marketing knowledge.

As with any form of direct assessment, incorporating the assignment into the syllabus, explaining the rationale (Slattery & Carlson, 2005), and ensuring the assignment impacts the course grade (Borin et al., 2008) provide motivation for student effort. In this case, both essays were graded and worth a total of 10% of students' grades in the course. The grading for student purposes (assessment *for* learning) was based on answering the question thoroughly as well as on grammar and writing style. The essays were not graded based on how 'right' their definitions were. Because students are highly motivated to do what it takes to earn a high grade (Weimer, 2002), grading that emphasizes content in this case could motivate students to use outside sources, which would negatively impact the validity of the results as well as the value of the

assignment for students. The grading for assurance *of* learning purposes was a separate process, described next.

Before grading for assurance of learning, a sample was selected. Student work was only included in the sample if the student completed a useable pre- and post-essay. Beginning with 82 students in the sample, 15 were omitted for not completing both pre- and post-essays (12 completed pre- only and three completed post- only). One student's essays were not included as the definition of marketing came from the textbook. The final sample includes pre- and post-essays from 66 students at the junior and senior-level.

Content analysis is a methodology that can be used to capture concepts used or implied in text (Carley, 1993) and systematically evaluate them (Kolbe & Burnett, 1991). With content analysis, words or phrases in a text assumed to have similar meanings are categorized into content categories (Weber, 1990). The presence of words or phrases within a category, the frequency of mentions, and the word choice all provide insights into the content. The coding of the text into categories is based on the eight coding choices for conceptual analysis described by Carley (1993). The coding choices are described below.

Level of analysis: For this study, the level of analysis includes both single words (i.e., 'pricing') and phrases (i.e., 'communication with customers') in order to fully capture the implicit meaning of the student authors.

Irrelevant information: The analysis was completed manually and so irrelevant information was simply skipped.

Predefined or interactive concept choice: A pre-defined list of words and phrases is not a good fit for this exploratory research, as the list would likely not capture the expanse of possible word choice by students, which may be based on personal experiences and informal language. A list of words and phrases for each concept was created as a starting point, which was then built up incrementally based on student word choice. For example, the marketing orientation concept starting list included 'customer satisfaction' and 'loyalty'. Coding flexibility allowed for new words and phrases to be added to the category's list interactively, such as 'keep old customers', which was interpreted as conceptually similar to loyalty. In another example, the phrases 'vying for money' and 'forcing to purchase' were not included on the starting coding list for the sales orientation concept, but clearly indicate a sales-orientation within the context of the assignment and so were added to the list (see Table 1 for a list of words and phrases by concept).

Table 1:
Words and Phrases by Concept

Sales-Orientation	Marketing Concept	Target Market
convince	want or need	target market
vying for money	customer satisfaction	segment
sell	relationship	demographics
spend money	loyalty	psychographics
forcing to purchase	retention	niche markets
persuade	value	find the right people
sales (not as "revenue")	keep old customers	specific audience
direct selling	partnership (with customers)	
creating a need		**Marketing Communication**
pushing	**Distribution**	advertising
	distribution	promotion
Product	channels	logo
product	place/placement	branding
service	supply chain	commercials
packaging	shipping	slogan
new product	where you sell it	message

Price price pricing	storing	campaign

Level of generalization: As previously discussed, relevant words and phrases were categorized in a particular category (i.e., price). For this research, tense does not influence meaning. Words in various forms and tenses were recorded as the same word (i.e., 'pricing' and 'price').

Creation of translation rules: As exploratory research, the use of slang and informal language would be difficult to predict and their omission may diminish possible insights into student thinking. For these reasons, synonyms were coded as separate words or phrases (i.e., 'how much something costs' was not coded as 'price').

Level of implication for concepts: Implicit meaning was deemed important for this research. The inclusion of implicit meaning relies on human analysis and makes automated coding impossible. Word choice was considered within the context of the writing. For example, the word 'sales' was not included in the sales orientation concept if it was used in the context of macro-level revenue ('the company's *sales* increase when…').

Existence or frequency: While occurrence-based analysis is more straight-forward, the frequency of mentions can reflect emphasis. As suggested by Carley (2003), frequency was captured and then collapsed into a yes-no analysis of occurrence.

Number of concepts: For the objectives and exploratory nature of this study, a small set of concepts were required. Several concepts typically covered in a Principles of Marketing course were selected for analysis: product, price, distribution, promotion, target market, sales orientation, and marketing orientation. While many more, or different, concepts could be selected, the concepts shown in Table 1 were determined to be both relevant to the learning goals of the course and relatively straight-forward to define and code. For automated coding, many more concepts could be included.

In addition to Carley's eight coding decisions, a decision regarding the level of aggregation of data must also be made (Weber, 1990). Because this study is considering student learning, each student's work, both pre-essay and post-essay, was determined to be relevant on its own. Therefore, the content is aggregated at the document level.

As mentioned in the discussion of the coding decisions, coding was completed manually in order to capture words and phrases that were not pre-determined, that do not match course vocabulary, or may include implied meaning. In addition, the list of words and phrases evolved based on various students' word choice and depended on understanding the context surrounding the word choice. The difficulty of considering context, in some situations, is one challenge of the content analysis methodology. For example, one student said that 'Although it is common to believe that the reason behind marketing is to sell, that . . . only plays a small role'. The word 'sell' is listed as a word associated with a sales-orientation, but that orientation is minimized here by the author. These context issues must be discussed between researchers to determine an agreeable solution that reflects the objectives of a particular study.

While no set standard exists for calculating and reporting intercoder reliability, the 'extent to which independent coders evaluate a characteristic of a message . . . and reach the same conclusion' (Lombard et al., 2002, 589), the use of multiple coders is critical, as content analysis is susceptible to researcher bias (Kolbe & Burnett, 1991). The initial coding was completed by one researcher/author. A second coder was engaged to validate the coding process. The second researcher/author was trained on

the coding process as well as how to use and update the list of accepted words and phrases. The sample coded to assess reliability should not be less than 10% (Lombard et al., 2002; Neuendorf, 2002). Because the number of essays used for this study is relatively small, the second researcher reviewed the coding of a sample of 42% of the pairs of essays (28 of 66 pairs) and noted disagreements with the first coder.

The contexts of each of these discrepancies were discussed between the two coders and agreement was made about inclusion of the word or phrase. In this case, the two coders achieved a 96% overall agreement, based on the coding decisions made by the two coders on which the coders initially agreed (Lombard et al., 2002). This can be further broken down into agreement by concept. The lowest percent agreement is for the "distribution" concept, at 76.5%; the second coder found that the word "storing" had not been included by the first coder, which impacted agreement on two essays. With only 17 total mentions of distribution, the differences in coding by the researchers on two essays significantly reduced the percent agreement, but also illustrate the value of having multiple coders in improving the quality of the analysis. The 'price' concept has inter-coder agreement of 84.2%, due to a similar small number of overall student mentions. Agreement on the remaining concepts ranged from 93.6% for marketing communications to 98.9% for both product and the marketing concept. While no standard is generally adopted for an acceptable level of reliability, 90% is almost always acceptable, 80% is accepted in many situations, and 70% is often used for exploratory research (Lombard et al., 2002, 600). These targets are met at both the individual concept level and at the summary level.

After assigning words and phrases into categories, the next step of content analysis is usually a frequency count of mentions within each concept (Weber, 1990). For example, "product" was recorded each time it was mentioned. The frequency count is thought to represent the author's intensity of concern (Weber, 1990). The words and phrases were put into a database organized by pre-and post journal entry for each student author. The number of words or phrases mentioned pre and post-entry in each concept were tallied by author then aggregated.

Comparing the pre- and post-number of mentions per concept is not always indicative of the importance a student placed on a particular concept. Each word or phrase within the same category may not reflect that category to the same extent (Weber, 1990). In some cases, the post-test entries were simply more concise. To address this issue, entries were also categorically coded (yes or no) to reflect the presence of a concept in pre-, post-, both, or neither context, without consideration of the number of mentions per concept.

Results and Discussion

Analysis was primarily based on the presence of words and phrases within each of the concept areas, with some consideration of frequency. Table 2 shows the categorical presence of each concept in pre- and post-testing. Table 3 presents the results in terms of frequency of each concept in the post-test minus frequency in the pre-test, compiled at a student-level and then averaged. A positive number indicates that the concept was more frequently present in the post-test, while a negative number indicates that the concept was more frequently mentioned in the pre-test.

Table 2

Summary of Results

	Product		Marketing Communication		Marketing Concept		Sales-Orientation	
	#	%	#	%	#	%	#	%
No mention	3	4.6%	6	9.1%	17	25.8%	19	28.8%
Pre-test only	9	13.6%	14	13.6%	9	13.6%	25	37.9%
Post-test only	3	4.6%	7	25.8%	17	25.8%	6	9.1%
Both	51	77.3%	39	34.9%	23	24.2%	16	24.2%

	Target Market		Distribution		Price	
	#	%	#	%	#	%
No mention	24	36.4%	43	65.2%	43	65.2%
Pre-test only	12	18.2%	7	10.6%	8	12.1%
Post-test only	10	15.2%	10	15.2%	10	15.2%
Both	20	30.3%	6	9.1%	5	7.6%

Table 3

Average Difference between Post and Pre Number of Mentions

Marketing Concept	1.41
Distribution	0.18
Price	0.05
Target Market	-0.18
Sales-Orientation	-0.62
Product	-1.03
Marketing Communication	-1.26

The first of the seven concepts, sales orientation, reflects a student's view that marketing is based on the selling function. Some of the pre-test essay phrases include negative connotations, such as 'vying for a person's money', 'forcing me to purchase', and 'pushing' in addition to more neutral words such as 'sell' and 'persuade'. While the sales-orientation persisted in the post-test for 39% of students that had a sales-orientation view of marketing in the first essay, the word choice in the second essay was almost exclusively derivatives of 'sell', 'convince' and 'persuade'. Alternatively, 29% of students did not mention a sales-orientation at all and nine percent mentioned sales only in the second journal entry. This analysis indicates that for most students, the impression of marketing as pushy sales is supplanted by a broader view of marketing; for those that persist in thinking of marketing as sales, the impression softens from pushy to persuasion.

The marketing concept is an area where the quantitative and qualitative data tell slightly different stories. This concept reflects students' understanding of marketing's focus on building long-term customer relationships by fulfilling wants and needs. Quantitatively, 35% of students include words or phrases indicative of a marketing orientation in both the pre- and post-essays. An equal number of students have no mention in either essay as include a mention in only the post-test, at 26% each. While just over 60% of students include the marketing concept in either both or the post-test only, this is not a resounding result; it does compare favorably to 33% for the sales-orientation. Table 2 shows that the marketing concept had the largest increase of mentions from pre- to post-test. Interestingly, the selection of words in the pre-test mostly surround the phrase 'wants and needs', whereas the post-tests more frequently focus on 'customer relationships'. In addition, the word 'value' emerges only once in the pre-tests and over 35 times in the post-tests. Overall, this analysis shows that while just over 60% of students leave the course with an understanding of the marketing concept as central to their definition of marketing and a deeper understanding of the

importance of relationships and value than when they entered the course, almost 40% of students need further reinforcement of this concept.

The concept of target market is one that is often familiar among consumers and so it is not surprising that the essays reflect a common knowledge of this term. Almost half (49%) of students mentioned target market in the pre-test. The post-test similarly reflects the use of this concept in 46% of responses. The word choice in the pre-tests was broad and un-specific, with terms such as 'right people', 'intended customer', and 'demographic', while the post-test verbiage more frequently settled on 'target market'. While this data shows an improvement in marketing vocabulary, the less than 50% mention of target market in the post-test again shows that many students need additional emphasis on this concept.

The concept of product was consistently present in both pre- and post-essays (77%). Only 5% of students did not include any mention of product in either essay. The words and phrases most frequently cited include 'product', and 'product or service'. This is a concept with which students seem comfortable, both as consumers coming into the course, and marketing students exiting.

Not surprisingly, the inclusion of either price or distribution concepts was minimal in the pre-test at 20% for each. Consumers may not have a strong awareness of how these concepts relate to marketing, particularly with the lack of visibility into distribution systems. What is both surprising and concerning is the similar lack of pricing and distribution reference in the post-test essays at 23% and 24%, respectively. A mere 10 students (15%) only mentioned price and/or distribution in the post-test (after not mentioning these concepts in the pre-test). While a lack of mention does not prove a lack of learning, it does show that students do not prioritize these topics compared to other functions of marketing.

Lastly, the concept of marketing communication was frequently mentioned in both pre- and post-essays. Almost 60% of students included some mention of marketing communications in both the pre- and post-essay. Interestingly, 21% only mention the communications concept in the pre-test, indicating that students selected other areas of focus for the post-test definition of marketing. Table 2 also reflects this, with the highest positive average showing the largest reduction in pre- to post-test mentions. This illustrates the strength of the preconceived notion of marketing as advertising as students come into the course; the reduction of the focus on marketing communications could be seen as success in broadening students' view through the course.

Conclusion

The content analysis methodology was used to evaluate student learning as reflected in pre- and post-essays in a Principles of Marketing course. As part of assessment *for* learning, instructors look at writing assignments qualitatively and complete a rubric for feedback to the student. The method here focuses on assurance *of* learning, in which a snapshot of learning contributes to an AoL committee's conversation about overall student performance compared to learning goals. The results would be shared with instructors at an aggregate level in order to then engage faculty in a discussion of 'closing the loop' - creating strategies to improve learning outcomes.

The research findings provide evidence of the value of the methodology. As the researchers intuitively knew, many students brought an advertising and sales bias into the Principles of Marketing classroom. This finding is consistent with Ferrell and Gonzalez (2004). Based on this data, students are learning about the ideas of 'relationship' and 'value'. On the other hand, the results uncover the real difficulties in supplanting a sales bias with a broader, customer-centric point of view. The changed perspective of many students is encouraging, though the high percentages of students

who cling to their initial impressions indicate that different teaching methods need to be used to address some topics. The infrequency with which both distribution and pricing are discussed in the essays highlights the need for additional emphasis in these areas.

The findings provide the instructor with concrete feedback regarding the knowledge and assumptions that students bring into the classroom as well as the content areas that students retain. The study shows how the content analysis methodology could be used by instructors in order to discover areas where a different teaching approach is needed. For example, the persistence of a sales orientation among these students could be addressed through a discussion of student experiences uncovering where this bias is created. These examples can then be countered by student experiences where a customer orientation is clearly shown. Cases and examples throughout the semester should highlight companies that show a marketing orientation, and these should be explicitly cited by the instructor, to help students make the connection.

The topics of distribution and pricing need further in-class and assignment attention by the instructor. The instructor can compare the current time spent on these topics vs. promotion, for example, and adjust to make them equitable. Students likely need more examples, case studies, and hands-on experiences with these topics, as they are concepts that many student do not bring into the class with them. For example, students could conduct a compare-and-contrast of the distribution strategies of a primarily brick-and-mortar retailer with that of a purely online retailer. For pricing, students could write a short analysis of the pricing strategies of a large product manufacturer, such as a cleaning products line, using data from local stores.

In many undergraduate business programs, Principles of Marketing is the one opportunity for business majors to acquire the basic marketing knowledge needed to be successful in their business role. For marketing majors, Principles is a foundation course on which all other courses build. For both audiences, a high-quality Principles of Marketing learning experience is essential. Applied across course sections and multiple instructors, this methodology could create a stronger understanding of student learning that can in turn lead to closing the assessment loop through curriculum change.

Contribution, Future Research, and Limitations

This research creates a beginning framework to be used by marketing instructors or programs as a starting point for their own content analysis of student work. The results are based on one instructor's classes and thus should be generalized with caution, though the methodology can be easily applied elsewhere. The pre- and post-essay assignment could be used in a variety of business courses and range from broad application (What is marketing?) to narrow (How should business engage in environmentally responsible activities?). The purpose of the analysis could be for an individual instructor's understanding of student learning or used course or program-wide as an assurance of learning tool to compliment widely-used multiple choice exams by adding rich data for analysis. The outcome of an initial content analysis could be further used to establish objectives for future assessments. For example, an instructor could set a goal to increase students' mention of pricing from 15% to 30%. The results can also be used to make targeted changes to curriculum, which improves student learning and provides evidence of program quality and improvement as required by AACSB (AACSB, 2003).

The pre- and post-essay assignment could be improved by requiring students to complete the writing in class. This removes the temptation of using secondary resources. Hand-written samples would prove difficult to read, though the instructor could overcome this by either requesting later submission of a word processed copy or by holding class in a computer lab. In addition, the phrasing of the pre- and post-assignments should be similar. In this case, students were asked to refer to the pre-

assignment in order to write their post-assignment, which created some difficulty in coding.

The pre- and post-essay idea could also be applied to a shorter timeframe, such as one class period, or around one topic. For example, to analyze student understanding of distribution, students could be asked to write a short entry about samples of distribution strategies before the content is covered; students could then write an essay or report on this same topic after the instructor has covered the content in class for a week.

Future research could focus on applying content analysis in a variety of marketing course contexts. In addition, future research could compare students' final course grade to the level of learning revealed in the pre- and post-essays. This could help the instructor determine whether the course grade is consistent with and reflective of the level of student learning and knowledge.

The subjective nature of a manual coding process may be considered a limitation, though engaging two researchers in independent coding reduces this concern. While manual coding was deemed necessary for this exploratory research, future projects could incorporate software for coding and analysis using the baseline words and phrases included here or developed in a first-round analysis.

References

Anderson, L. & Krathwohl D. (Eds), P. Cruikshank, R. Mayer, P. Pintrich, J. Raths, and M. Wittrock (2001). *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives,* New York, NY: Longman.

Association to Advance Collegiate Schools of Business (AACSB) International (2003). *Eligibility Procedures and Accreditation Standards for Business Accreditation.*

Bagchi, S. & Sharma R. (2014). Hierarchy in Bloom's Taxonomy: An empirical case-based exploration using MBA students, *Journal of Case Research*, 5(2), 57-79.

Birenbaum, M., Breur, K., Cascallar, E., Dochy, F., Dori, Y., Ridgway, J., Wiesemes, R. & Nickmans, G. (2006). A learning integrated system, *Educational Research Review*, 1, 61-67.

Bloom, B. (Ed.), Englehart, M., Furst, E., Hill, W., and Krathwohl, D. (1956) *Taxonomy of Educational Objectives: The Classification of Educational Goals,* New York, NY: David McKay.

Borin, N., Metcalf, L. E. & Tietje, B. C. (2008). Implementing assessment in an outcome-based marketing curriculum, *Journal of Marketing Education*, 30(2), 150-159.

Burgess, B. (2014). Pop-up retailing: The design, implementation, and five-year evolution of an experiential learning project, *Journal of Marketing Education*, 34(3), 284-296.

Carley, K. (1993). Coding choices for textual analysis: A comparison of content analysis and map analysis, *Sociological Methodology*, *23*, 75-126.

Downey, W. S. & Schetzsle, S. (2012). Asynchronous assessment in a large lecture marketing course, *Marketing Education Review*, 22(2), 97-108.

Eder, D. & Martell, K. (2004). Anchoring assessment in its place: Reviving, surviving, and even thriving, Presentation at AACSB Conference April, 2004.

Ferrell, L. and G. Gonzalez (2004). Beliefs and expectations of principles of marketing students, *Journal of Marketing Education*, *26*(2), 116-122.

Goette, T., Woodard, H. & Young, D. (2008). The link among strategic planning, curriculum management, and assurance of learning: One school's experience, *Communications of the IIMA*, 8(2), 31-44.

Heath, M.T. & Heath, M. (2008). (Mis)trust in marketing: A reflection on consumers' attitudes and perceptions, *Journal Of Marketing Management*, 24(9-10),1025-1039.

Kolbe, R. H. & Burnett, M. S. (1991). Content-analysis research: An examination of applications with directives for improving research reliability and objectivity, *Journal of Consumer Research,* 18, 243-250.

LaFleur, E. K., Babin, L. A. & Lopez T.B. (2009). Assurance of learning for principles of marketing students: A longitudinal study of a course-embedded direct assessment, *Journal of Marketing Education*, 31(2), 131-141. doi: 10.1177/0273475309335242

Lepianka, J. E. (2014). Using reflective journaling to improve the orientation of graduate nurses, *The Journal of Continuing Education in Nursing,* 45(8), 342-3.

Lombard, M., Snyder-Duch, J. & Bracken, C. C. (2002). Content analysis in mass communication: Assessment and reporting of intercoding reliability, *Human Communication Research*, 28, 587-604.

Michlitsch, J.F. & Sidle, M. W. (2002). Assessing student learning outcomes: A comparative study of techniques used in business school disciplines, *Journal of Education for Business*, 77(3), 125-130.

Neuendorf, K.A. (2002). The Content Analysis Guidebook, Sage Publications: Thousand Oaks.

Sampson, S. D. & Betters-Reed, B. L. (2008). Assurance of learning and outcomes assessment: A case study of assessment of a marketing curriculum, *Marketing Education Review*, 18(3), 25-36.

Slattery, J. M. & Carlson, J. F. (2005). Preparing an effective syllabus: Current best practices, *College Teaching*, 53(4), 159-164.

Weber, R. P. (1990). Basic Content Analysis, 2nd edition, Sage University Paper Series on Quantitative Applications in the Social Sciences: Newbury Park, CA.

Weimer, M. (2002). Learner-centered teaching: Five key changes to practice, Jossey-Bass: San Francisco.

Weldy, T. G. & Turnipseed, D. L. (2010). Assessing and improving learning in business schools: Direct and indirect measures of learning, *Journal of Education for Business*, 85, 268-273.

Zhu F. X. & McFarland, D. (2005). Towards assurance of learning in business programs: Components and measurements, *The Journal of American Academy of Business*, 7, 69-72.