EXPLORING THE DEVELOPMENT OF MARKETING EXPERTISE WITH AUTHENTIC ASSESSEMENT

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Abstract

Marketing educators may question if students are best served by learning a battery of marketing concepts and wonder if, in fact, this is fundamental for solving marketing problems. Studies from Hunt, Chonko and Wood (1986), Armstrong (1991), and Armstrong and Schultz (1993) suggest that marketing education may not help students perform better at marketing jobs. Finch, Nadeau, and O'Reilly (2013) found that employers consider improvements in problem solving skills a priority in marketing education. The purpose of this research is to demonstrate a case-based assessment to measure students and refine the teaching of higher level marketing skills.

One conceptualization of a higher level thinking skill that should be desirable in marketing graduates is marketing expertise. Following Bacon and Quinlan-Wilder (2011), marketing expertise is the ability to identify marketing actions with the greatest potential benefit to the target organization. Those high in marketing expertise are thought to move quickly towards attractive solutions to problems and not to waste time on inadequate ones. If marketing educators focus on development of marketing expertise that makes students more effective in their work, a new plan for assessment becomes necessary. An alternate approach to traditional forced-choice response is 'authentic assessment,' in which "students are asked to perform real-world tasks that demonstrate meaningful application of essential knowledge and skills" (Mueller, 2013). For decision-focused marketing expertise, perhaps the most authentic task students could undertake is to develop recommendations for a business, as in a case analysis. This research focuses on using a published case to assess student abilities, and to ascertain if differences exist between students at different points in their marketing education.

Three student groups studied here were from a medium-sized private university in the western United States. Students were predominantly white and traditionally aged, and about half of them come from outside of the state. The three groups included a total of 170 students, 60 business majors in an introductory marketing course, 58 non-business majors in an introductory marketing course, and 52 marketing majors in a capstone marketing course with a prerequisite requiring completion of at least five marketing courses. Data were collected over two quarters.

The case selected for this research, Camp Wahanowin (Grasby & Silverberg, 2012), was considered simple enough that any student would be able to understand it, yet complicated enough that there were some issues with which to wrestle. The case describes a summer camp facing a decision of where to focus its marketing efforts. The instrument that was developed contained 17 multiple-choice questions about the case and four essay questions. The multiple-choice questions covered basic facts in the case, avoiding evaluations or recommendations.

The four essay questions were designed to capture marketing expertise without requiring substantial knowledge of marketing vocabulary or practice in responding to a particular case write-up format (in contrast to Abernethy & Butler, 1993). Paraphrasing slightly, the questions were (1) what is the current problem facing the firm and how big is the problem, (2) how is the firm positioned and how could the positioning be improved, (3) what is the most attractive promotional option now, and (4) what is the least attractive promotional option at this point.

Students were asked to read the case in advance and prepare to take a quiz on it. They were told that the quiz scores counted towards grades (20 points out of a possible 500, or 4%). The

students in introductory classes took the case quiz during the last week of the term, so that they could accumulate some basic marketing knowledge, and students in the capstone took the quiz in the second week of the term, as it was assumed they already had substantial marketing knowledge. In class, students took the quiz online (in Qualtrics) in closed-book fashion.

The Cronbach's alpha of the multiple-choice section was found to be .41, below the recommended standard of .70 for early research (Nunnally, 1978), so results based on this section alone must be interpreted with caution. The essay section was analyzed using multiple raters and analytical scoring (Sax, 1997) in which points are awarded for specific issues raised. Three faculty studied the case, the teaching note, and 24 randomly selected, non-identified case responses. They identified responses worthy of more credit, and specifically the points for particular comments. The faculty then separately scored each of the four essays for each of the 24 random students. The analysis revealed high inter-rater reliability, including average inter-rater correlations of .89, .65, .98, and .97. The faculty agreed on minor rubric changes.

Next, graduate research assistants (GRAs) read the case and were trained in the use of the rubric. Four GRAs scored two essay questions each (thus two raters per question), and were asked to score all 170 responses on one question before scoring all 170 responses on their other question. Data were sorted by a randomly-generated identifier so the raters could neither identify the respondent nor identify the study group to which the respondent belonged.

The correlations among each pair of GRA ratings were observed, and the Spearman-Brown formula was used for estimating the overall reliability of a measure based on the average of the two scores (Nunnally, 1978). The intercorrelations and reliabilities of all measures and an overall score summing all five measures (multiple choice and four essays) is shown in Table 1.

Table 1: Intercorrelations and Reliabilities of Measures

	Multiple-Choice	Essay 1	Essay 2	Essay 3	Essay 4	Overall Score
Multiple-Choice	.41					
Essay 1	.33	.80				
Essay 2	.28	.17	.71			
Essay 3	.14*	.24	.12*	.93		
Essay 4	.27	.13*	.06*	.15	.99	
Overall Score	.55	.58	.43	.63	.68	.46

Note: $N = 170$. All correlations significant at $p \leq .05$ except as noted. Reliabilities are shown on the diagonal.

* Not significant at $p \leq .05$

As can be seen in Table 1, although the essay scoring was a fairly reliable process, the intercorrelations among some measures was fairly low, and thus the overall reliability of the combined scores, at .46, is not high. Therefore, in the analyses that follow, some analyses will be conducted with the overall score, and some with the individual scores.

Although GPA, SAT, and major data were collected from the registrar, the correlations were not high, so these data were eventually dropped from consideration in subsequent analysis.

Because of our special interest in marketing majors, this variable was retained preliminarily, although major data was available only for 140 of the 170 students studied.

A series of regression analyses were conducted. Each of the six measures of marketing knowledge shown in Table 1 was used as the dependent variable in six different regressions. The independent variables included dummies for group and major (marketing/non marketing). Stepwise regression was used with a default *p*-value for inclusion of .05. Interestingly, only one of these six models showed significant results. For essay question 3, the coefficient for the capstone group was significant, but negative (std beta = -.241, $F[1,138] = 8.60$, $p = .004$, $R^2 = .06$). Thus, there were no differences in student performance across groups except that capstone course students scored significantly worse than other groups on essay question 3.

The power in the previous analysis was diminished somewhat because of missing major data, while major was not significant in any of the models. Therefore, major was dropped from the models and all six were analyzed again. This time, two models yielded significant results, the model with essay question 3 as the dependent variable, and the model with the total score as the dependent variable. In both models, the coefficient for non-business majors in introduction to marketing was significant and positive. When essay question 3 was the dependent variable, the standardized coefficient for non-business introductory students was .267 ($F[1,168] = 12.94$, $p < .001$, $R^2 = .07$). When the total score was the dependent variable, the standardized coefficient for non-business introductory students was .197 ($F[1,168] = 6.81$, $p = .01$, $R^2 = .04$), but the significant finding in the overall score may largely be due to the significance in question 3. Taken together, the general finding is that non business students perform better than introductory marketing students and capstone marketing students, primarily on essay 3.

Essay question 3 asked respondents "Of the promotional strategies mentioned in the case, which ONE do you think is the MOST attractive and why? (As much as possible, use facts in the case to support your answer)." Ten points were awarded for recognizing website improvement as a top priority, and additional points were awarded for offering various facts to support the argument. This option was identified in the teaching note as the strongest option, and the faculty agreed. On this item alone, the mean score for the non business majors was 6.98 ($SD = 4.39$), and the mean score for the capstone students was 4.04 ($SD = 4.85$). The difference on this one score within the longer rubric was significant and the effect size was large ($t[108] = 3.34$, p = .001, Cohen's $d = .64$). The mean score for the business majors in the introduction to marketing course was 4.92. Thus, in what may be the most important item on the entire quiz, deciding what action to take, the non business majors in introduction to marketing were more likely to identify the most attractive promotional strategy than the marketing majors in the capstone, a disturbing result.

A limitation of the case may have been that it was too simple to allow adequate divergence of student responses. But if we accept that the case was realistic and adequately complex, results indicate that marketing education does not help marketing students make decisions, which is consistent with studies noted earlier. The relatively low correlations among scores on different parts of the case quiz also raises concerns about learning from and scoring cases. Of note are the low correlations between essay question 3 (the recommendation) and all other scores. This contradicts assertions that problem identification or understanding the firm's positioning is important to determining the appropriate marketing action.

There are several limitations in the current study, yet it offers no evidence that advanced marketing education is effective in developing marketing expertise, and instead indicates that students may make effective marketing decisions without much marketing education at all. The method used, authentic assessment, shows promise for providing unexpected findings and thus

challenging established paradigms in marketing education. Although these findings may be tentative, we hope the general approach inspires additional research in this important area.

References Available upon Request