From Education to Employment: Using Marketing Simulation Games to Foster Meta-Skill

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Abstract

Utilizing literature on marketing education and employers of marketing graduates, this study identified 5 meta-skills required of marketing graduates. Previous studies have measured the use of simulations in business courses, but not as they relate to meta-skills. This study tests the use of a competitive, team-based marketing simulation game as a method of fostering these skills in an undergraduate principles of marketing course across 2 semesters. The skills measured were teamwork, time management, problem solving, work-ethic, and the ability to manage change. 69 participants completed a pre-simulation and post-simulation survey to indicate their self-reported level of ability in the 5 skill
areas. The results of the surveys were measured to show potential change after the simulation use.

Keywords: Simulation games, Meta-skills, Marketing Education

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INTRODUCTION

Business and marketing educators are faced with a question of determining the purpose of a marketing education (Harrigan & Hubert, 2011) as well as the problem of intrinsic motivation for marketing students to engage in the material (Taylor, Hunter, Melton, & Goodwin (2011). Duffy and Ney (2015) suggested that higher education institutions should have a closer working relationship with practitioners, as there is evidence that a marketing education isn’t a strong predictor of career success (Hunt, Chonko, & Wood., 1986; Bacon, 2017). If the purpose of marketing education is to teach students to hone their skills and career knowledge to best deliver customer value (Baker, Kleine, & Bennion, 2003), then the purpose of this research is to explore one method of preparing students for future employment.

Quantitative skill analysis, marketing management and strategy are among some of the gaps between student learning and job preparedness, as well as the ability to analyze detailed information and solve marketing problems (Pefanis Schlee & Karns, 2017). The development of meta-skills, such as problem solving and adaptability, are not unique to a marketing education, but through experiential learning, marketing educators can apply meta-skills in a marketing context to better prepare students for future employment (Finch, Nadau, & O’Reilly, 2013). Meta-skills, or soft skills, are often found to be where many graduates fall short of their expectations for employment (Stewart, Wall, & Marciniec, 2016).

In a study of students, faculty and recruiters, Hopkins, Raymond, and Carlson (2011) suggest that marketing educators can help students
develop critical thinking, analytical, and communication skills through engaging classroom activities. McDaniel and White (1993) recommended undergraduate marketing programs prepare students for the “real world” as well as emphasizing the activities by marketing practitioners. Emphasis on working practices in a corporate word are also shown to better prepare students for marketing careers (Walker, Tsarenko, Wagstaff, Powell, Steel, & Brace-Govan, 2009).

Holtzman and Kraft (2016) conducted a study of 120 small business and 71 large businesses to determine which skills were believed to be the most important for the workplace. The top meta-skills that were identified were written communication skills, adapting to change, enthusiasm, teamwork skills, creative thinking for problem solving, interpersonal skills, and work ethic. Pefanis Schlee and Harich (2010) found the ability to work in teams, creative problem solving, quantitative analysis, time management, and oral communications to be among the top meta-skills required in job listings, while the ability to develop marketing plans, manage marketing functions, product management, and segmentation among the conceptual marketing knowledge most often required in marketing careers.

In addition to meta-skills, marketing educators have often found it difficult to teach marketing concepts beyond the economic theory (Mills & Treen, 2016). Experiential learning activities have been shown to increase a student’s knowledge of definitional and non-definitional marketing knowledge (Hamer, 2000). However, it is imperative that marketing graduates are prepared for a job market that would allow for use of the marketing knowledge they acquire in their undergraduate education (Pefanis Schlee & Harich, 2010). Simulation games have become have become popular among marketing educators and can be a tool for instructors to teach a variety of concepts (Faria, 2001).

The purpose of this research is to study the use of simulation games in a principles of marketing course to foster meta-skills. This study examines self-reported abilities in various meta-skills and the impact of a
competitive, team-based marketing simulation on these meta-skills. The findings of this research could help marketing educators better prepare their students to become job-ready upon graduation.

**Literature Review**

**Marketing Education**

The American Marketing Association defines marketing as “the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large.” (American Marketing Association, 2013). Marketing educators, as opposed to educators in the strict liberal arts or vocational disciplines, need to demonstrate a theoretical knowledge as well as the practice of marketing applications (Schibrowsky, Peltier, & Boyt, 2002). Marketing educators face challenges of accountability and assessment standards while also facing the increasing role of a learning-facilitator while helping students learn to practice marketing and embracing instructional technology (Celsi, & Wolfinbarger, 2002; Harrigan, & Hubert, 2011; Lamont, & Friedman, 1997; Smart, Kelley, & Conant, 1999).

Marketing educators face a significant gap between what is taught in the classroom and the skills of marketing practitioners (Brennan, Harker, Stringfellow, & Ennis, 2006). Marketing education can be more successful when educators work closely with practitioners (Bacon, 2017; Harrigan & Hulbert, 2011). To increase this challenge, many marketing graduates in the workplace rely on skills more than theoretical knowledge (Pefanis Schlee, & Harich, 2010). Practitioners often seek marketing graduates who can demonstrate “real-world” application (Bacon, 2017; Duffy & Ney, 2015; McDaniel & White, 1993, Finch et. al, 2012; Walker et. al, 2009). Utilizing experiential learning can assist educators in job-ready preparation (Pefanis Schlee & Karns, 2017) due to the need of “work-ready” graduates (Greenacre, Freeman, Jaskari, & Cadweller, 2017).
Academic institutions are often not prepared to train job-ready graduates, and the private business sector are not typically capable of replacing the classroom training a student would receive (Whittaker & Williams, 2016).

**Meta-Skills**

Meta-skills, sometimes referred to as soft-skills, can include skills that relate to workplace readiness and employability. Lack of meta-skills are often a determining factor in a graduate’s failed job search (Paadi, 2014). Many employers place an importance on meta-skills equal to that of traditional hard skills, which could include technical competencies, when evaluating candidates for employment. Meta-skills pose a challenge for education because people learn only by doing them (Stewart, et al., 2016). Meta-skills that are most valued are those that are directly transferable to the workplace (Deepa & Seth, 2013).

In a study of college graduates, Hartley, Routon and Torres (2018) found marketing students feel they develop skills during their marketing education, but that there is an increased need for application of skills for students to potentially succeed in the workplace. Budden (1985) and Remington, Guidry, Budden and Tanner (2000) concluded marketing professors feel their students often do not have strong meta-skills such as motivation and communication. Lowry and Xie (2008) noted the need for organization, meeting deadlines, and interpersonal skills as necessary for employment.

Marketing graduates also require effort on the part of faculty to help develop teamwork (Young & Murphy, 2003). Assignments with real-world input and business relevant skills are recommended to help students become employable (Barr & McNeilly, 2002). The ability to solve case studies along with enthusiasm and initiative are also skills that can help a job seeker when applying for a marketing position (Hopkins, Raymond, & Carlson, 2011).

Individual meta-skills were identified in the literature (Pefanis Schlee & Karns, 2017; Finch et. al., 2013; Stewart et. al., 2016; Holtzman & Kraft,
Of these skills, the most frequently referenced that are applicable to this study are: (a) teamwork; (b) time management; (c) problem solving; (d) work-ethic; and (e) the ability to manage change.

**Simulations**

Business and marketing simulation games are widely used across business institutions, and can be one of the most effective ways for students to engage in active learning (Vos & Brennan, 2010). However, the use of simulations in the classroom presents challenges for educators. User experience can rely on the amount of guidance given by faculty, as well as the difficulty of aligning the simulation objectives within learning units (Caruana, La Rocca, & Snehota, 2016).

Simulation games provide students an opportunity to handle real life situations in a virtual world (Hosaka & Mat, 2017). Simulation games can be of assistance in marketing courses as they allow users to make decisions regarding positioning, sales, pricing, and distribution (Treen, Atanasova, Pitt, & Johnson, 2016). Simulation games can also help students improve financial performance (Brennan & Vos, 2013), and are valuable learning experiences (Cadotte, 2016). Business simulations are also effective for motivating students to learn (Buil, Catalán, & Martínez, 2019). Business simulation games have been found to reduce perceived indecisiveness among students (Wellington, Hutchinson, & Faria, 2016; Kim & Watson, 2017).

**Methodology**

In this study we analyze the relationship between the use of a simulation game in a principles of marketing class and perceived confidence in meta-skills. Using quantitative methods and a convenience sample of students enrolled in an undergraduate principles of marketing course we measured the effectiveness of simulation games to affect soft-skills:
(a) teamwork; (b) time management; (c) problem solving; (d) work-ethic; and (e) the ability to manage change.

Students who participated in this study were enrolled in an undergraduate principles of marketing course. The participants were surveyed from 4 course sections over the span of 2 semesters. The survey was administered to 93 students, with 78 students electing to complete the survey. Due to survey mortality, a final sample of 69 students completed both surveys. The participants were given a simulation game as required part of the course curriculum which accounts for 35% of the students’ total grade. The course is a 3-credit course with no prerequisites and is part of the core business curriculum required of all business majors. Other non-business majors were also enrolled in the course.

An established simulation was chosen as the simulation game for the course. This simulation stresses the development of skills such as teamwork, problem-solving, decision-making and time management among other benefits. The simulation allows students to make decisions regarding product, price, place, and promotion for a consumer product. Students chose their own teams of 3-4 students in which they would engage in the simulation for 8 simulated periods.

The students started the simulation after midterm, and the simulation ran until the end of the semester. The simulation is directly competitive between teams in each section, with approximately 8 teams per course section. Students were required to read a case about the simulation, submit a brand name, mini strategic plan, and make team-based decisions for each period. The instructor spent one class period explaining the simulation to students, and students were given 2 periods in class to complete practice rounds, ask for clarification from the instructor, and to see results that will not impact their scores once the competitive simulation begins. After the practice periods, the work on the simulation was to be performed outside of class within their assigned groups. At the end of the simulation, each team was required to give a 5-10 minute presentation about their
experience, and each student individually completed a team member evaluation of each of their team members.

Before the simulation began, each student was given a consent form and a survey to complete. The surveys were created and distributed through Google Forms. At the conclusion of the simulation, students were given a follow-up survey. Each survey contained the same questions (See Appendix 1). 69 participants completed the surveys. After both surveys were completed, their pre and post survey answers were paired together and their gender, major and year of study were noted (see Table 1). Then all identifying information was removed from the data set and each student was assigned a random number.

Using SPSS software, the data was analyzed. For each question assessed, a seven-point Likert scale was used, and were coded numerically from 1 (disagree completely) to 7 (agree completely). Paired t-tests were performed with the pre and post survey results among all students, and then were broken down into results by gender, lower level students (freshman and sophomore) and upper level students (junior and senior), and between business and non-business majors (see Table 3). In this data set, any student not majoring in business or marketing were considered a non-major.

**Findings**

As outlined in the research methodology, we used two surveys consisting of 5 questions each to determine whether the simulation in the classroom improved soft skills. As we will report in the limitations section of this paper, the pre-simulation survey and the post-simulation survey were self-reported by the participants. The surveys did not contain any observational data nor did we intend them to be. The students answered five questions on a seven-point Likert scale (see Appendix 1). The output data is listed in Tables 1-9 in Appendix 2.
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**WEB APPENDIX**

A web appendix for this case is available at: https://dx.doi.org/10.15239/j.brcadvje.2020.04.01.wa02