

# EXPERIMENTING WITH TEAM NORMS IN A MARKETING SIMULATION

*Sandra Mottner, Western Washington University*

## ABSTRACT

*The dynamics of functional groups are well understood and rely partly on a foundation of communally held norms formed and supported by group members. Given time constraints for classroom teams to develop group norms, this research seeks to understand the role, if any, that a tool used effectively in the business environment aids the development of norms, and hence students' perception, of team functionality and learning. Results measured after groups used the tool to build norms and then played a marketing simulation, indicate strong perceptions of learning and group functionality, but the norm-building tool made no significant positive difference in outcomes leading to the implication that group norm building tools designed for business use are not necessarily effective in the educational environment without modification.*

**Key Words:** *educational research, marketing pedagogy, team dynamics, team norms, simulations.*

## INTRODUCTION

Competitive computerized marketing simulations have been widely used as teaching and learning tool – particularly in Marketing Strategy and Management courses – and continue to be a meaningful pedagogical tool (Brooks, Burson, and Rudd 2006; Drea, Tripp, and Stuenkel 2005; Karns 2005). Students are usually grouped into teams in order to compete in these simulations. Pedagogical expectations are that students using these simulations will learn more about marketing strategy concepts through the application of marketing knowledge as well as gain marketing application skills (Maher and Hughner 2005). Teamwork skills should be enhanced in such an environment and conversely, problems with group dynamics should adversely affect administration of the simulation game and presumably the student's ability to learn from the simulation (Gentry, Burns, and Fritzsche 1993). Positive teamwork skills, such as development of strong group norms for knowledge sharing, for example, affect positive performance goals (Quigley, Tesluk, Locke, and Bartol 2007). Additionally, team learning tends to emphasize a deeper level of learning and a higher level of thinking (Hernandez 2002). Negative teamwork scenarios (dysfunctional team experiences) abound in anecdotal form and in literature and the dysfunctional team is linked to a sub-optimal learning experience (Pfaff and Huddleston 2003; Connerly and Mael 2001; Feichtner and Davis 1985). Research also asserts that cohesive teams that work well together realize better performance (Deeter-Schmelz, Kennedy, and Ramsey 2002). Marketing educators have a responsibility to their students to not only facilitate their learning about marketing concepts and application, but also to help the students develop and use tools that will assist them in establishing more functional

teams, both in the college setting and in their professional careers (Lamont 2001).

Increased team functionality should result when a team establishes clear behavior standards, or norms, for collaborating and working together (Duimering 2009; Patterson, Carron, and Loughhead 2005; Burke and McLendon 2003; Corbin 2002). In a business setting the normal stages of group formation, including the establishment of group norms, takes time and the group may be together for many years and through many tasks and assignments rather than just for a school quarter or semester. Classroom team projects are very time-constrained compared with most business settings. Therefore, an intervention (or tool) that helps establish behavioral norms more quickly than in an unassisted business setting should result in increased group functionality and subsequently, increased group performance. Group interventions or team-building tools, can take different forms such as team-contracting devices (Bailey, Sass, Swiercz, Seal, and Kayes 2005), group self-selection or constrained self-selection (Bacon, Stewart, and Anderson 2001), "Collective Effort Classroom Assessment Technique" (Corbin 2002; Angelo and Cross 1993) or a group norm structuring tool (Spich and Keleman 1985), among others. Some of these tools are based on college-level pedagogical practice and theory, while others are based on business models.

The purpose of this research is to serve as a discussion platform and an experimental setting for further exploring the use of simulations, class teams, and the business tool for accelerating team functionality. This research brings together a marketing simulation as a pedagogical tool for learning through application, or experiential learning in a team setting with one specific team- (norm-) building tool. The norm-building tool (Explicit Norm Intervention

by Spich and Keleman 1985) was designed to increase the speed with which teams develop group norms in the business world. If the pedagogical tool for establishing team norms is useful in the classroom then student team perceptions of functional group behavior should increase, and theoretically, a greater perception of learning should result as well.

The general literature regarding simulations as pedagogical tools is briefly reviewed and then, since simulations are normally used in team settings, the literature regarding the antecedents and attributes of functional teams and then the link between functional teams and performance and learning outcomes is also reviewed. An experiment that was used to test the effects of a tool for norm building, perceptions of group functionality and perceived performance over a 5-year period is detailed. Results indicate an overall perception of above average learning and above average group functionality. However, in an experimental design, results demonstrate the student's perception that the tool designed to foster norm development in business is not effective. Implications for the classroom are offered.

## **SIMULATIONS – EXPERIENTIAL LEARNING**

Experiential, or active learning, is generally accepted as an effective pedagogical tool (Brooks, Burson, and Rudd 2006; Maher and Hughner 2005; Drea, Tripp, and Stuenkel 2005; Daly 2001; Gillentine and Schulz 2001; Gremler, Hoffman, Keaveney, and Wright 2000). In fact, "active learning" as a pedagogical technique has been shown to be more effective than "passive learning" (Li, Greenberg, and Nicholls 2007; Karns 2006). Experiential learning practices are often preferred by students to more traditional pedagogical tools (Bobbitt, Inks, Kemp, and Mayo 2000; Chapman and Sorge 1999). Computerized simulations are one of the primary means for providing experiential opportunities for learning in business schools and particularly in capstone strategy classes (Stephen, Parante, and Brown 2002). Simulations provide a venue for integrating learning from prior coursework and experiences, as well as reinforcing specific course material. Students gain functional skills and learn through applying theoretical constructs to simulated environments. Retention of knowledge is gained through the experience of making decisions and seeing the results of those decisions. Simulations have been positively associated with learning performance (Young, Klemz, and Murphy 2003) and higher level cognitive skills (Smith and Van Doren 2004). There are even some correlations reported between students who performed well on simulations and had positive interpersonal group relationships, and the student's later career mobility, satisfaction and salary levels (Wolfe and Roberts 1993). Based on the prior literature results, therefore, we hypothesized that:

H1: Student perception of learning will be attributed to a marketing simulation.

## **TEAMS, TEAM FUNCTIONALITY, AND TEAM LEARNING PERFORMANCE**

Literature and anecdotal evidence indicate that experiential learning simulation projects generally happen in student teams (Stephen, Parente, and Brown 2002; Lamont 2001; Lant and Hurley 1999). However, while not all students learn well in the team or group environment (Razzouk, Seitz, and Rizkallah 2003), there appears to be a relationship between learning performance or outcomes and team behaviors (Pfaff and Huddleston 2003). Wellington, Faria, and Hutchinson (2009), in a study of competitiveness in marketing simulation game performance, extensively reviewed the variables that have been studied with respect to student performance in simulations. Included in those variables are, "personality characteristics, locus of team control, achievement motivation, previous academic performance, time pressure, ethnic origin of team members, gender, team size, previous business experience, team organizational structure, method of team formation, and grade weighting," (Wellington, Faria, and Hutchinson 2009). Determining ways to increase team functionality should be important – especially if the means for improving functionality can be transferred to other team settings and particularly to the business environment. Indeed, an often cited reason for students working in groups is that it helps the students acquire teamwork skills that will translate well to the team experiences students will find in the business world (Chapman, Meuter, Toy, and Wright 2006).

What are the antecedents and characteristics of functional teams in a classroom environment? Two major antecedents that have been evaluated include team size and team selection method. Optimal team size in marketing simulations varies. However, teams of 3 to 4 students appear to be positively related to team performance and satisfaction in the same simulation used in this research (Cosse, Ashworth, and Weisenberger 1999). Teams smaller than seven were used successfully in a group collaboration study (Corbin 2002). Keeping team size the same for each group within a simulated industry or class also is important in team satisfaction and performance (Cosse et al. 1999). There is conflictive evidence with respect to gender makeup of teams; however, Deeter-Schmelz et al. (2002) found that there was no significant difference with respect to single sex or gender diverse teams.

Deeter-Schmelz et al. (2002) found that group cohesion was an important factor that is characteristic of functional teams. One of the keys to cohesion is a sense of group membership which leads to the question of group self-selection versus random assignment. In general, teams that are self-selected have an advantage in functionality or

group dynamics, attitude toward the group as well as outcomes (Chapman, Meuter, Toy, and Wright 2006). While optimal team selection methods vary depending upon circumstances, generally self-selection and/or constrained self-selection offer fair balance of skills, good initial cohesion, and ease of meeting times (Bacon, Stewart and Anderson 2001) although they may have less diversity and players may get left out. In Chapman et al.'s (2006) study it was found that self-selected teams had significantly better communication, enthusiasm and resolved conflicts more effectively than randomly selected groups. However, randomly assigned groups tended to use time in meetings more efficiently and felt they were more task oriented. Overall, outcome measures in the Chapman et al. (2006) study were significantly better for the self-selected groups. Similarly, Connerly (2001) found that student team members who selected their own group were more satisfied with the performance of the group in terms of achievements as well as group dynamics.

Attributes of functional teams include the presence of a strong normative "layer" of team rules, goals, and standards (Eppler and Sukowski 2000). The norms, or "standards of behavior agreed to by all members," are frequently established early in the life of a group and remain relatively stable unless or until something dramatic occurs (Hackman and Walton 1986). Such norms can be particularly important when they are formed around performance issues (Hackman 1987). It is likely that norms are easier for groups to agree upon when the groups self-select and therefore have a higher propensity to have shared standards of behaviors. Therefore, we hypothesized:

H2: Student perception of learning performance will be significantly better in teams that were formed using constrained self-selection.

H3: Student perception of group functionality will be significantly better in teams that were formed using constrained self-selection.

The amount and type of feedback provided to groups during a simulation and the group's ability to analyze the information and make substantive changes often play a role in how well a group functions and the outcomes of the group (Lant and Hurley 1999), including learning (Druskat and Kayes 2000). As Lant and Hurley (1999) demonstrate in their study of students in a business simulation, feedback about performance was particularly meaningful to future group decisions, and evidence of commitment to the simulation and future performance. Since different group members may respond differently to feedback and consequently have differing levels of commitment, decision-making by a group may become strained and even dysfunctional as group members deal with these differences. However, other types of feedback, including how positive and negative feedback are provided by an instructor, could play a role in the functionality of groups.

In Corbin's (2002) study of the use of a three-phase group assessment technique, the student teams in a marketing capstone class had better performances with respect to enhanced concepts and implementations of teamwork (functional and effective behavior) than any other method tried previously.

Student learning and performance in groups depends upon prior information and how fully that information is disseminated to the group (Bruttel 2009). However, in Bruttel's (2009) experiments, the direction of past performance information affects the learning and the subsequent behavior of groups. Using learning direction theory, Bruttel (2009) demonstrates how prior experience that yielded poor results information leads to more substandard group behavior.

The emergence of team leaders who take charge of the team or work independently is usually contrary to established group norms and can negatively affect team functionality – although the findings in this area are contradictory in some cases and generally not significant (Pfaff and Huddleston 2003) in the classroom. However, in non-classroom experiments, a team leader had a positive effect on perceived functionality in small groups (3 members or fewer) and a negative effect in larger groups (Weber, Camerer, Rottenstreich, and Knez 2001). Strong team leaders have been observed to be more efficient than effective in group economic experiments (Bruttel 2009). Efficient rather than effective group leaders could stifle innovative thought, consensus building and a robust learning environment for some team members.

Social loafing, the problem of the non-contributing team member, is also a source of team dysfunction (Pfaff and Huddleston 2003). Management of the social-loafing problem is critical in aiding group functionality (Bailey et al. 2005) especially when multiple learning objectives are sought, as in the capstone simulation situation.

When Deeter-Schmelz et al. (2002) examined the combination of attributes including team size, gender diversity and level of cohesion, only the level of cohesion had a significant effect on "teamwork." A cohesive team is characterized as having a common goal and sharing a commitment to that goal. The process of teamwork as measured by Deeter-Schmelz et al. (2002) included working toward common goals, tension-free environments, high morale and enthusiasm, pride, follow-through, feedback, sensitivity to others and the ability to resolve conflict, among other characteristics (see Deeter-Schmelz et al. 2002, p. 119, for a complete description of measures).

The role of the instructor also influences the attitude students have toward group work (Chapman and Van Auken 2001). Instructors who discuss group dynamic issues, the value of group work and seek to ameliorate the grade effects of social loafing, through peer evaluations for example, tend to have a positive effect on the student's

attitude and perceived benefits of group work (Chapman and Van Auken 2001). These findings dovetail nicely with the Bruttel (2009) findings noted above. It seems logical to assume that a positive attitude toward the group, in part based on prior group outcomes, should be associated with more effective and functional group work.

Obviously, a large number of internal and contextual factors impact team functionality or teamwork (Sundstrom, DeMeuse, and Futrell 1990). Indeed, the process of teamwork positively affects team performance and goal achievement (Deeter-Schmelz et al. 2002; Stewart and Barrick 2000). Therefore, it was expected that this research would confirm that team functionality has a positive effect on team performance.

H4: Student perception of learning performance will be significantly linked to student perception of team functionality.

Groups that have been experimentally manipulated to emphasize cooperative, task-oriented norms tend to have more effective interactions within the group in a business setting (Chatman and Flynn 2001). As Hare (1976) points out, there is no basis for organized interaction in a group until some agreement is reached about both goals and norms. Sundstrom, DeMeuse, and Futrell (1990) suggest that “charters” created by team members may be a tool for influencing group norms and establishing goals. While a “charter” or “team contract” might deal with any number of team issues, similar tools (or interventions) can be limited to just the development of group norms. Spich and Keleman (1985) proposed an “Explicit Norm Structuring Process” to force the early and direct development of group norms in business teams. Since the process of building and establishing norms under a standard time scenario often disrupts group performance and takes considerable time away from tasks, Spich and Keleman (1985) argue that in order to reduce “process loss” in groups, early norm development (or norm building) that is very explicit in nature is worth the initial start-up time, as opposed to trying to reset norms in midstream.

Spich and Keleman (1985) proposed a set of norm issue behaviors that discriminated between effective and ineffective group performers. This was subsequently developed into a group/team intervention tool for establishing group norms by Keleman (1994). The basic process is for group members to discuss and agree about the relative importance of a set of individual behaviors (norms) which are important to group functioning, given the task they face. The process, or norm-building tool, has been used successfully in business settings (Keleman 2001).

As noted above, it is expected that the use of a norm-building tool should be positively associated with more functional teams. There are two reasons for this expected outcome. First, norm development has been shown to improve group functionality and the “explicit norm structuring intervention” specifically addresses this need. Sec-

ond, in those groups that are permitted to self-select members, achieving norms is easier and quicker (Chatman and Flynn 2001) because it is likely that the groups are more heterogeneous and less diverse in terms of norms. By having the intervention (the norm-building tool) occur in class this demonstrates the importance the instructor places on the group norms and hence, students will have more positive attitudes toward the group work (Chapman and Van Auken 2001). In a pilot study for this exploratory research, a positive relationship was found between the norm-building tool and student perception of group functionality, as well as a positive relationship between functional teams and the perception of learning. A very tiny relationship was found in the pilot study between the norm-building tool and the perception of learning. The larger study undertaken in this research seeks to determine whether there is a significant difference in student’s perception of team functionality with respect to the norm-building tool. Similarly, it is expected that there will be a significant difference in the perception of learning with respect to the norm-building tool.

When teams function well together they cooperate in the learning. Indeed, as Druskat and Kayes (2000, p. 331) state, “we define team learning as team members acquiring and sharing unique knowledge and information and examining what is helping and hurting team performance to continually improve as a unit.” Therefore:

H5: Student perception of learning performance will be significantly better when the “team norm-building” tool is used.

H6: Student perception of team functionality will be significantly better when the “team norm-building” tool is used.

## METHODOLOGY

*The Marketing Game!* (Mason and Perreault 2002) simulation was used in this research over a 5-year period (14 academic quarters) in a medium-sized West Coast university as part of a capstone marketing strategy course. The simulation was played at the most complex level which involved the option to make the maximum amount of marketing decisions. The simulation was played for eight “years” or moves per term, which were submitted to the instructor under “normal economic conditions.” The simulation began after a few weeks of class discussion, lectures, cases analyses and a comprehensive marketing strategy examination. The simulation was organized so that there were four competing companies (teams of students) within a given industry. Team size was controlled as best as possible within the constraints of four competing companies and class size. Students were assigned using a totally random method for seven academic quarters and then a constrained team self-selection technique was used for an additional seven quarters. Students in the constrained

self-selection groups could request their fellow teammates as well as state with whom they preferred not to work. The instructor then made the matches honoring the student's requests to the greatest degree while trying to maintain balance of abilities and minimizing "outcasts."

Students received annual feedback prior to making the next set of decisions through simulation generated reports as well as class, group, and individual meetings with the professor. Feedback topics included how to analyze competitive positions, how to predict future competitive moves, how to predict a unit volume to manufacture based on marketing variables, how to generate a marketing plan for future moves, the development of a SWOT analysis and the development of future financial information based on simulation experiences. A written marketing plan was also generated for two years beyond the simulation after the eight-year cycle had been completed.

Student performance was measured by student "perception of performance" for the purposes of this research. However, each team received a grade based on their actual financial performance in the simulation. As noted by Bamberger and Levi (2009) team outcomes are best measured for the entire group and not for individual if maximum team performance is to be achieved.

### Team Norm-Building Tool

In order to test for the effects of the team norm-building tool, the intervention based on *Jumpstarting Your New Team* (Keleman 1994) was administered during the same class period as the simulation introduction and shortly after team membership had been announced. The teams had a brief introduction as to what "norms" meant and how one builds "consensus." Each team was then given "Behavior List One" (Appendix A) and the team members were instructed to individually rate the behaviors as to whether they believed: (a) the behavior was critical for team success, or (b) the behavior was important but not critical, or (c) that the critical behavior inhibited team success. After the individual team members had rated each behavior, they were then instructed to reach a consensus for their team for each behavior. When they had finished their work on "Behavior List One," they were then given "Behavior List Two" (Appendix B). The team as a whole worked through the second behavior list coming to consensus about which behaviors merited an A, B, or C designation. Controls employed to ensure uniformity between sections included the instructor, team size, simulation instructions and settings, and intervention administration. Team leaders were not designated or requested. Peer evaluations were completed at the end of the entire simulation which allowed students to evaluate their team members, which helped control for "social loafing."

### Experimental Design

Data was collected from students over 14 quarters. A post-test was administered at the conclusion of the simulation in each quarter after the students were given the results of the simulation in terms of profit, relative rankings and grade. The 24 statements on the post-test were evaluated by the students using a 5-point Likert scale in which "1" meant they disagreed strongly and "5" meant they agreed strongly and are shown in Table 1.

The norm building intervention was employed for 10 quarters; allowing four quarters without an intervention. The experiment was also manipulated by allowing self-selection of teams for seven quarters and assigning teams for seven quarters (see Table 2). This provided 161 data points for norm intervention/assigned teams (henceforth Group A), 130 data points for no intervention/self-selected teams (henceforth Group B), and 69 data points for norm intervention/self-selected teams (henceforth Group C). This allowed us to establish a three-group after treatment measurement experimental design with Group C (receiving the norm building intervention and self-selecting team membership) being the control group.

Since we were assessing the impact of two different manipulations, i.e., assigning groups and not introducing the intervention tool, we employed two different experimental groups. Group B was allowed to self-select group membership but was not exposed to the norm building intervention and Group A was exposed to the norm intervention but had group membership assigned.

### RESULTS

The post-simulation survey was completed by 358 out of 372 students involved in the experiment (96.2%). Students were primarily traditional college-age seniors and fairly evenly divided by females and males. An analysis of questions designed to assess student perception of learning performance, group functionality, and intervention effectiveness were subjected to factor analysis utilizing SPSS 17.0. PCA with vaimax rotation employing a conservative loading cut-off of .500, and communality extraction of approximately .500 resulted in three factors containing a total of 17 items (see Table 1). The results exhibited significant measures for both KMO (.862) and Bartlett's Test ( $p = .000$ ) with a total of 57 percent of the total variance extracted. The first factor, Learning performance, contains five items exhibiting an alpha of .743 while the second factor, Functionality, contains six items and exhibits an alpha of .880, and the final factor, Intervention, contains six items with an alpha of .856. With each factor, the internal consistency exceeds minimal acceptable levels of .700 (Smith and Albaum 2005).

**TABLE 1**  
**MEANS, STANDARD DEVIATIONS, AND RESPONSE SIZE**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Mean | Standard<br>Deviation | N   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|-----|
| <b>Team Learning Performance</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |                       |     |
| A. Our group performed well in the marketing simulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 4.01 | 1.124                 | 353 |
| F. Our group took the marketing simulation seriously                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 4.44 | .693                  | 353 |
| J. The marketing simulation game helped our group learn more about marketing concepts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 4.14 | .859                  | 353 |
| L. Our group took the course very seriously                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 4.36 | .741                  | 353 |
| W. The marketing simulation game helped our group learn more about the application of marketing concepts to actual situations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 4.17 | .813                  | 353 |
| <b>Team Functioning</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |                       |     |
| B. Our group divided tasks amongst itself very well                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 4.24 | .896                  | 355 |
| G. It was very easy to divide up the work given the size of our group                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 4.15 | .943                  | 355 |
| H. The group was the best group I have ever been in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3.45 | 1.137                 | 355 |
| O. The group had the most problems of any group I have ever been in ⊕                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 4.39 | 1.036                 | 355 |
| S. When our group did not function well it was because of problems within our group ⊕                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3.70 | 1.202                 | 355 |
| V. When our group did not function well it was because of certain individuals in the group ⊕                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 3.70 | 1.338                 | 355 |
| <b>Norm Intervention</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      |                       |     |
| C. Our group took the norm building exercise seriously                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 3.59 | .968                  | 225 |
| K. I would recommend using the norm building exercise again                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 3.37 | 1.036                 | 225 |
| M. Our team used the norm building tools frequently while we completed the marketing simulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 2.53 | 1.126                 | 225 |
| N. When our group ran into problems we used the established norms to help overcome the problems                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 2.40 | .982                  | 225 |
| R. The norm building exercise helped our group play the marketing simulation well                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2.61 | .949                  | 225 |
| X. The norm building exercise helped our group function effectively                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 2.84 | .978                  | 225 |
| <p>Data collected using a Likert-type scale anchored by strongly disagree (1) and strongly agree (5).</p> <p>⊕ Statements were reverse-coded.</p> <p>The following items did not represent nor were included in any of the factors:</p> <p>D. A fairly strong dominant leader emerged in our group ☒ ,</p> <p>E. Naming our team helped us to be a more effective group,</p> <p>I. Our group had very few scheduling problems,</p> <p>P. If we could have re-negotiated the norms half way through the marketing simulation it would have been helpful to our group</p> <p>Q. Our team was too large,</p> <p>T. It was very easy to establish norms given the size of our group,</p> <p>U. The norm building exercise helped our group learn more about marketing concepts</p> |      |                       |     |

**TABLE 2**  
**EXPERIMENTAL DESIGN OF TREATMENTS**

| Group | Norm Intervention | Self-Selected Teams | Quarters |
|-------|-------------------|---------------------|----------|
| A     | Yes               | No                  | 7        |
| B     | No                | Yes                 | 4        |
| C     | Yes               | Yes                 | 3        |

In order to test Hypothesis 1, determining if students found the marketing simulation a positive learning experience, a one sample t-test was employed with the midpoint (three) as the testing value. The mean value, 4.2, for Team Learning Performance was found to be significantly different from the test value at the .000 level. Therefore, H1 is supported.

In order to test H2 and H3, analyzing the impact of constrained self-selection on learning performance and group functionality, independent samples t-tests were employed. Results from the control group, Group C, were compared to those of the experimental group – in this case Group A. In order to assess if the treatment (norm-building tool/intervention) the Scheffe post-hoc test for ANOVA, considered conservative (Edwards 1993) along with confidence intervals [95% level] were assessed for determining significant differences among groups. Confidence intervals provide a detailed method for studying the magnitude of differences in population means (Iversen and Norpoth 1987).

ANOVA results ( $p = .586$ ) indicate no significant differences between groups with regard to perceived learning, with post hoc results failing to show a difference between pair groups. The means for each group are Group A, 4.12; Group B, 4.14; and Group C, 4.23 – indicating that each group, regardless of norm intervention or self-selection of teams perceived the simulation to be well above “average” in terms of being educational. Thus, Hypothesis 1 continued to be supported but Hypothesis 2 was not supported.

Team functionality was evaluated based on indicators “B”, “D”, “F”, “H”, “I”, “L”, “O”, “S”, and “V” as shown in Table 1 and indicated by Spich and Keleman (1985). Upon assessment of the internal reliability, it was determined that item “D”, which exhibited an inter-item correlation of .050, was eliminated resulting in a Cronbach Alpha of .795. The ANOVA with respect to team functionality indicate that significant differences exist between groups with respect to perceived team functionality. Post hoc results indicate a significant difference ( $p = .023$ ) between Group A ( $\bar{x} = 3.86$ ) and Group B ( $\bar{x} = 4.09$ )

but no significant difference ( $p = .961$ ) between Group A and Group C ( $\bar{x} = 3.83$ ) with the difference between Group B and Group C directionally supported ( $p = .052$ ) and worthy of further investigation. Even though each sample perceived their groups to function better than average, Group B, the group that did not receive the intervention, believed that they functioned statistically significantly better than the other groups. Therefore Hypothesis 3 was not supported and the test found the results completely opposite of the hypothesis.

This led us to examine the students’ perception of the norm intervention. Students’ perception of the norm-building exercise/tool was evaluated using statements “C”, “K”, “M”, “N”, “P”, “R”, and “X” in Table 1 and indicated by Spich and Keleman (1985). This construct exhibited a Cronbach Alpha of .846 indicating high internal reliability. The mean for the norm intervention construct for Group A was 2.82 and for Group C, 2.76. A t-test indicates that there are no significant differences ( $p = .567$ ) between the two groups. This indicates that students do not perceive the norm intervention as helpful. Thus, hypotheses H5 and H6 were not supported.

## IMPLICATIONS AND FUTURE RESEARCH

The results with respect to overall learning related to the simulation and as perceived by the students was as expected except that functionality and self-selection of teams made no apparent difference in the perception of learning. However, the finding that students perceived that they functioned significantly better without the norm intervention was contrary to predictions. Why is this the case and what are the implications of these findings?

One possible explanation comes from the comments that teachers often hear from students. At the beginning of the quarter or semester – especially the fall term – students believe that they will read every chapter before class, they will start their term paper well before the end of the term and they will attend every class. They make these commitments to themselves and thereby raise unreasonable expectations of themselves. All too often the end of the

term comes and students realize that their commitments were wishful thoughts vaguely remembered and most often dispensed somewhere during the term. The norm exercise may build up the same expectations and the post-test simply serves to remind the student that they didn't quite do everything they agreed to at the start of the simulation. For example, one of the norms from Appendix A states that each group member will, "prepare thoroughly before meetings." When asked to think about that again at the end of the quarter many students might have to admit that they didn't live up to the norm. The norm exercise therefore is setting up an ideal that without constant reinforcement and work is doomed to failure. Student perception of the effectiveness of agreeing to something they don't manage to live up to is likely to be negative.

This leads to the speculation as to whether a norm-building tool that is designed for industrial or corporate teams that are brought together for the long-term, and whose members' livelihoods depend upon the successful functioning of the team, are the right type of tool for the classroom setting. Indeed, can we really compare the student groups, organized for a short-term project during a quarter for which they earn a grade, to the corporate teams brought together for either short- or long-term projects? Indeed, Connerley and Mael (2001) state that student teams differ in many respects from industry teams. Comparisons of tools for improving team functionality and improving learning would be helpful. In particular, it would also be helpful to examine more closely the team-skills that are being taught in the classroom to the team-work skills necessary in business.

An indicator of student perceptions can be found in a sample of comments that were included in the post-simulation surveys. A sample of the frequent comments is shown in Appendix C. While there was positive feedback, many students indicated that the tool needed reinforcement and merely serviced as an "ice-breaker." Many found the length of the tool cumbersome and the statements a little too generic.

The assessment tool used by Corbin (2002) was successful in increasing group functionality. One of the characteristics of that tool is that it is used several times over the length of a course. Hence, the behaviors that were assessed using that tool were also reinforced repeatedly. Many of the behaviors listed in the tool used by Corbin (2002) are also used in the norm-building tool used in this experiment. Therefore, it is likely that repeated use of the norm-building tool in some fashion might change the outcomes experienced in this study.

Interestingly, the number of student comments markedly decreased as the 14 quarters progressed. This may indicate that while the externals of the experiment were maintained, the instructor was making small corrections or changes that were affecting how the classes and groups perceived their functionality and their learning. Overall,

as noted in Table 1, items J and W's mean are high indicating better than average perceived learning. Similarly, items that were indicators of group functionality were also above average. Consequently, the norm intervention itself may have reinforced some ideals but no attribution to the intervention was made on the part of the students. Rather, the students focused on the simulation itself, which makes sense as that is the graded part of the coursework.

For future use, the studies by Bisen and Laverie (2009) and Corbin (2002) show that periodic feedback during a team learning environment can show a modifying and positive effect on team functionality and/or learning. This more continuous feedback format appears to have overall benefits that the experiment performed for this research did not experience. As noted earlier, the continuous assessment technique (Bicen and Lavarie 2009; Corbin 2002) is strongly recommended for future research as well as practice.

Finally, the Fullagar and Egleston (2008) study has reexamined the entire group cohesion and performance linkage in a computerized "microworld" controlled experiment. In their analysis it was found that, "group performance (predicted) group cohesiveness and not vice versa," (p. 2574). This is contrary to the traditional concept of group cohesion or group functionality being the result of the norming phase of the "forming, storming, norming and performing" model based on Tuckman's (1965) work. The Fullagar and Egleston (2008) findings plus the indications of the research outlined in this experiment indicates that while a relationship between group cohesion or group functionality and performance definitely exists, the exact nature of the relationship is not well understood. While certain issues such as social loafing, group size, and self-selection versus random selection, have been addressed, the nature of the relationship between group cohesion and performance is still far from well understood.

## CONCLUSION

It is reassuring to know that despite the fact that there is much more work to be done in the aforementioned areas, the link between the computerized marketing simulation and the perception of learning remains stable and strong. Understanding of teamwork, and in particular functional teamwork, in the classroom continues to need further study. The relationship between student perception of learning and team functionality is still not completely understood. Further, the relationship between team skills learned experientially in various college courses and the team skills needed in the business industry may need further assessment. Overall, this experiment has raised more questions than it has answered. A tool used to build group norms in industry did not work as it would

have in the business environment when it was used in the classroom. The pedagogical need for repetition, such as the multiple use of the assessment tool used by Corbin

(2002) to modify behavior and/or increase learning performance is indicated by this research.

## ENDNOTE

Acknowledgments: The author would like to express her gratitude to Shawn Thelan, Ph.D. of Hofstra University and Ken Keleman, Ph.D., Emeritus of Western Washington University for their advice and assistance with this project.

## REFERENCES

- Angelo, Thomas A. and K. Patricia Cross (1993), *Classroom Assessment Techniques: A Handbook for College Teachers*, 2<sup>nd</sup> ed. San Francisco, CA: Jossey-Bass Publishers.
- Bailey, James, Mary Sass, Paul M. Swiercz, Craig Seal, and D. Christopher Kayes (2005), "Teaching With and Through Teams: Student-Written, Instructor-Facilitated Case Writing and the Signatory Code," *Journal of Management Education*, 29 (1), 39–60.
- Bamberger, Peter A. and Racheli Levi (2008), "Team-Based Reward Allocation Structures and the Helping Behavior of Outcome-Interdependent Team Members," *Journal of Managerial Psychology*, 24 (4), 27.3
- Bicen, Pelin and Debra A. Lavarie (2009), *Group-Based Assessment as a Dynamic Approach to Marketing Education*, 31 (2), 96–108.
- Bobbitt, L. Michelle, Scott A. Inks, Katie J. Kemp, and Donna T. Mayo (2000), "Integrating Marketing Courses to Enhance Team-Based Experiential Learning," *Journal of Marketing Education*, 22 (1), 15–24.
- Brooks, Bradley W., Timothy E. Burson, and David V. Rudd (2006), "Addressing Current Research Gaps and Directions in Educational Marketing Simulations," *Journal for Advancement of Marketing Education*, 9 (Winter), 43–49.
- Bruttel, Lisa V. (2009), "Group Dynamics in Experimental Studies – The Bertrand Parado Revisited," *Journal of Economic Behavior & Organization*, 69, 51–63.
- Chapman, Kenneth J. and Christine L. Sorge (1999), "Can a Simulation Help Achieve Course Objectives? An Exploratory Study Investigating Differences Among Instructional Tools," *Journal of Education for Business*, 74 (4), 225–31.
- \_\_\_\_\_ and Stuart Van Auken (2001), "Creating Positive Group Project Experiences: An examination of the Role of the Instructor on Students' Perceptions of Group Projects," *Journal of Marketing Education*, 23 (2), 117–27.
- \_\_\_\_\_, Matthew Meuter, Dan Toy, and Lauren Wright (2006), "Can't We Pick Our Own Groups? The Influence of Group Selection Method on Group Dynamics and Outcomes," *Journal of Management Education*, 30 (4), 557–69.
- Chatman, Jennifer A. and Francis J. Flynn (2001), "The Influence of Demographic Heterogeneity on the Emergence and Consequences of Cooperative Norms in Team Work," *Academy of Management Journal*, 44 (5), 956–74.
- Connerley, Mary L. and Fred A. Mael (2001), "The Importance and Invasiveness of Student Team Selection Criteria," *Journal of Management Education*, 25 (5), 471–94.
- Corbin, Steve (2002), "Improving Group Collaboration and Student Teams' Understanding of Responsibility Through a Three-Phased Classroom Assessment Technique," *Journal for the Advancement of Marketing Education*, 2, 37–49.
- Cosse, Thomas J., D. Neil Ashworth, and Terry M. Weisenberger (1999), "The Effects of Team Size in a Marketing Simulation," *Journal of Marketing Theory and Practice*, 7 (3), 98–106.
- Daly, Shawn P. (2001), "Student-Operated Internet Business: True Experiential Learning in Entrepreneurship and Retail Management," *Journal of Marketing Education*, 23 (3), 204–15.
- Deeter-Schmelz, Dawn R., Karen Norman Kennedy, and Rosemary P. Ramsey (2002), "Enriching our Understanding of Student Team Effectiveness," *Journal of Marketing Education*, 24 (2), 114–24.
- Drea, John T., Carolyn Tripp, and Kathleen Stuenkel (2005), "An Assessment of the Effectiveness of an In-Class Game on Marketing Students' Perceptions and Learning Outcomes," *Marketing Education Review*, 15 (1), 25–33.
- Druskat, Vanessa Urch and D. Christopher Kayes (2000), "Learning Versus Performance in Short-Term Project Teams," *Small Group Research*, 31 (3), 328–53.
- Edwards, L.K., Editor (1993), *Applied Analysis of Variance in Behavioral Science*. New York: Marcel Dekker, Inc.
- Eppler, Martin J. and Oliver Sukowski (2000), "Managing Team Knowledge: Core Processes, Tools and Enabling Factors," *European Management Journal*, 18 (3), 334–41.
- Feichtner, S. and E. Davis (1985), "Why Some Groups

- Fail: A Survey of Students' Experiences with Learning Groups," *Organizational Behavior Teaching Review*, 9 (4), 58–73.
- Fullagar, Clive J. and David O. Egleston (2008), "Norming and Performing: Using Microworlds to Understand the Relationship Between Team Cohesiveness and Performance," *Applied Social Psychology*, 38 (10), 2574–93.
- Gentry, James W., Alvin C. Burns, and David J. Fritzsche (1993), "Administrative Issues in the Use of Computer Simulation Games," *Marketing Education Review*, 3 (Spring), 25–33.
- Gillentine, Andy and Jeff Schulz (2001), "Marketing the Fantasy Football League: Utilization of Simulations to Enhance Sport Marketing Concepts," *Journal of Marketing Education*, 23 (3), 178–86.
- Gremler, Dwayne D., K. Douglas Hoffman, Susan M. Keaveney, and Lauren K. Wright (2000), "Experiential Learning Exercises in Services Marketing Courses," *Journal of Marketing Education*, 22 (1), 35–44.
- Hackman, J.R. and R.E. Walton (1986), "Leading Groups in Organizations," in *Designing Effective Work Groups*, P.S. Goodman, ed. San Francisco: Jossey-Bass.
- Hare, A.P. (1976), *The Handbook of Small Group Research*, 2<sup>nd</sup> ed. New York: Macmillan.
- Hernandez, Sigfredo A. (2002), "Team Learning in a Marketing Principles Course: Cooperative Structures that Facilitate Active Learning and Higher Level Thinking," *Journal of Marketing Education*, 24 (1), 73–85.
- Iversen G.R. and H. Norpoth (1987), *Analysis of Variance*, 2<sup>nd</sup> ed. Beverly Hills: Sage Publications – Quantitative Applications in the Social Sciences.
- Karns, Gary (2005), "An Update of Marketing Student Perceptions of Learning Activities: Structure, Preferences, and Effectiveness," *Journal of Marketing Education*, 27 (2), 163–71.
- \_\_\_\_\_ (2006), "Learning Style Differences in the Perceived Effectiveness of Learning Activities," *Journal of Marketing Education*, 28 (1), 56–63.
- Keleman, Ken S. (1994), *Jumpstarting Your New Team: Establishing Norms*. San Diego: Pfeiffer & Company.
- \_\_\_\_\_ (2001), Interview with Ken Keleman, Professor of Management, Western Washington University.
- Lamont, Lawrence M. (2001), "Enhancing Student and Team Learning with Interactive Marketing Simulations," *Marketing Education Review*, 11 (1), 45–55.
- Lant, Theresa K. and Amy E. Hurley (1999), "A Contingency Model of Response to Performance Feedback," *Group & Organizational Management*, 24 (4), 421–37.
- Li, Tiger, Barnett A. Greenberg, and J.A.F. Nicholls (2007), "Teaching Experiential Learning: Adoption of an Innovative Course in an MBA Marketing Curriculum," *Journal of Marketing Education*, 29 (1), 25–33.
- Maher, Jill K. and Renee Shaw Hughner (2005), "Experiential Marketing Projects: Student Perceptions of Live Case and Simulation Methods," *Journal for Advancement in Marketing Education*, 7 (Winter), 1–10.
- Mason, Charlotte H. and William D. Perreault, Jr. (2002), *The Marketing Game!* New York: McGraw-Hill/Irwin.
- Pfaff, Elizabeth and Patricia Huddleston (2003), "Does it Matter if I Hate Teamwork? What Impacts Student Attitudes Towards Teamwork," *Journal of Marketing Education*, 25 (1), 37–46.
- Quigley, Narda R., Paul E. Tesluk, Edwin A. Locke, and Kathryn M. Bartol (2007), "A Multilevel Investigation of the Motivational Mechanisms Underlying Knowledge Sharing and Performance," *Organization Science*, 18 (1), 71–88.
- Razzouk, Nabil Y., Victoria Seitz, and Elias Rizkallah (2003), "Learning by Doing: Using Experiential Projects in the Undergraduate Marketing Strategy Course," *Marketing Education Review*, 13 (2), 35–41.
- Smith, Louise W. and Doris C. Van Doren (2004), "The Reality-Based Learning Method: A Simple Method for Keeping Teaching Activities Relevant and Effective," *Journal of Marketing Education*, 26 (1), 66–74.
- Smith, Scott M. and Gerald S. Albaum (2005), *Fundamentals of Marketing Research*. Thousand Oaks, CA: Sage Publications.
- Spich, R.S. and K.S. Keleman (1985), "Explicit Norm Structuring Process: A Strategy for Increasing Task-Group Effectiveness," *Group & Organizational Studies*, 10 (1), 37–59.
- Stewart, Greg L. and Murray R. Barrick (2000), "Team Structure and Performance: Assessing the Mediating Role of Intrateam Process and the Moderating Role of Task Type," *Academy of Management Journal*, 43 (2), 135–48.
- Sundstrom, E., K.P. De Meuse, and D. Futrell (1990), "Work Teams," *American Psychologist*, 45 (2), 120–33.
- Tuckman, B.W. (1965), "Developmental Sequence in Small Groups," *Psychological Bulletin*, 63, 384–99.
- Weber, Roberto, Colin Camerer, Yuval Rottenstreich, and Marc Knez (2001), "The Illusion of Leadership: Misattribution of Cause in Coordination Games," *Organization Science*, 12 (5), 582–98.
- Wellington, William J., A.J. Faria, and David Hutchinson (2009), "The Trait of Competitiveness and its Relationship to Marketing Simulation Game Performance in an Introductory Marketing Class," *MMA Fall Educators' Conference*, 79–89.

Wolfe, Joseph and C. Richard Roberts (1993), "A Further Study of the External Validity of Business Games: Five-Year Peer Group Indicators," *Simulations & Gaming*, 24 (1), 21–33.

Young, Mark R., Bruce R. Klemz, and J. William Murphy

(2003), "Enhancing Learning Outcomes: The Effects of Instructional Technology, Learning Styles, Instructional Methods, and Student Behavior," *Journal of Marketing Education*, 25 (2), 130–42.

## APPENDIX A BEHAVIOR LIST 1

### **While working in our team, individuals should . . .**

1. Do their fair share of the work?
2. Check to ensure that everyone clearly understands what is to be done.
3. Be clear and concise in their communication.
4. Encourage planning, including short-range agendas as well as long-range goals.
5. Encourage open and candid opinions about issues.
6. Listen willingly and carefully to other people's ideas, even if those people have a different viewpoint.
7. Prepare thoroughly before meetings.
8. Help the team organize work, for example, delegate assignments.
9. Make team members feel at ease in discussions.
10. Involve others by asking questions.
11. Ask questions when they do not clearly understand tasks or procedures.
12. Propose specific analyses of pros and cons of decisions faced by the team.
13. Follow through on task assignments.
14. Be grouchy and grumpy, complaining about tasks, working conditions, etc.
15. Help other members when assistance is requested.
16. Restate or clarify the team's objectives if the team seems to drift off target.
17. Treat all team members as equals.
18. Paraphrase or restate what someone else says in order to check meaning.
19. Let personal differences with other members interfere with team activity.
20. Continue to look for different ways to solve a problem.
21. Openly voice opinions and share ideas.
22. Request a response from each team member before making a decision about a team issue.
23. Be flexible in arranging meeting schedules.
24. Ask about other people's feelings.
25. Be stubborn and unwilling to listen to the ideas of others.
26. Compliment others for things they have said or done.
27. Openly enjoy working in the team.
28. Be willing to meet whenever it is necessary to discuss a problem.
29. Respond to suggestions.
30. Make rude remarks.

Note: Some items in the list of behaviors or reverse stated to catch respondents attention.

## APPENDIX B BEHAVIOR LIST 2

### **While working in our team, individuals should. . .**

1. Deal with conflict directly, bringing it to the attention of the team
2. Express enthusiasm about what the team is doing.
3. Promote personal agendas over the team's concerns.
4. Promote brainstorming sessions before choosing a solution.
5. Criticize other members' ideas without offering alternatives.
6. Be sarcastic or make fun of ideas presented.

**APPENDIX B (CONTINUED)**  
**BEHAVIOR LIST 2**

7. Encourage budgeting of the team's time.
8. At the end of a meeting, restate their own responsibilities to check for agreement.
9. Meet agreed-on deadlines.
10. Be serious about the team's work.
11. Watch the clock.
12. Deliver poor-quality work.
13. Make critical comments about other team members in their absence.
14. Interrupt other members while they are speaking.
15. Make negative comments about ideas presented ("That's dumb!").
16. Arrive on time for regularly scheduled meetings.
17. Do little things to make it pleasant to be a member of the team.
18. Talk about topics that do not relate to the subject at hand.
19. Be willing to listen to other team members' ideas.
20. Put off work until a later time (procrastinate).
21. Encourage the team to review its accomplishments to date.
22. Constantly pick fights and bicker with other members.
23. Say, "Let's not adjourn the meeting until we have a firm grasp of the problem."
24. Disagree in a nice way.
25. Get the team's approval on important matters before proceeding.
26. Say "thank you" and offer compliments.
27. Play around and joke when the team is trying to get something done.
28. Be direct and accurate in expressing their own feelings, say what they feel.
29. Encourage the assignment of specific members to do particular jobs.
30. Agree just for the sake of putting an end to an issue.

Note: Some items in the list of behaviors or reverse stated to catch respondents attention.

**APPENDIX C**  
**STUDENT COMMENT SAMPLES FROM POST-SIMULATION FEEDBACK**

QUESTION 1: If the norm-building exercise were to be used again, what changes (if any) would you make?

- ◆ Repeat the exercise halfway through the simulation.
- ◆ Creating our own norms.
- ◆ Lists were too long and too stereotyped.
- ◆ Do the exercise later in the simulation to address group problems.
- ◆ Make the norms more specific to the simulation.
- ◆ Just do one list – not two.
- ◆ Make the importance of it clearer.
- ◆ Make no changes – it worked perfectly.
- ◆ Don't use it again.
- ◆ Adapt it more to group work for class.
- ◆ Make sure we look at the exercise more than once in the term.
- ◆ Have us choose the most important norms for our group.
- ◆ Just use it to resolve team conflicts.
- ◆ Make the lists shorter and more concise.
- ◆ We didn't need it – we've all been in groups before.

**APPENDIX C (CONTINUED)**  
**STUDENT COMMENT SAMPLES FROM POST-SIMULATION FEEDBACK**

QUESTION 2: What were the three most important things you learned from the norm-building exercise?

- ◆ Similarities and differences, how I differ from others.
- ◆ Group member personalities.
- ◆ People chose norms they might not actually do.
- ◆ Getting acquainted with my group members – learning how my group thought.
- ◆ Talking things out makes things run smoother.
- ◆ People have different needs, groups are diverse in thinking and can't always agree.
- ◆ I wished we'd stuck to the norms.
- ◆ We didn't always do what we said we would do.
- ◆ Open communications are important.
- ◆ Coming prepared for meetings was really important.
- ◆ People read the statements differently.
- ◆ We learned to establish norms early and creating expectations for group members was easier.
- ◆ It's good to have everyone on the same page.
- ◆ Give up some personal norms for the sake of the team.
- ◆ I learned how my group operated and how I worked with them before we got started.

QUESTION 3: What parts about the norm-building exercise would you recommend be used again?

- ◆ The sharing and agreeing is a great ice breaker.
- ◆ Doing it as a group.
- ◆ The whole thing should be used again.
- ◆ It shouldn't be used again.
- ◆ Use less norms on the lists – keep the ones that have the most to do with the simulation.
- ◆ A good introduction tactic for the group.
- ◆ Being able to agree to disagree and have respect.