STUDENT ATTITUDES TOWARD TEAM PROJECTS

Alison M. Wolfe, Elmira College

ABSTRACT

Marketing education at the postsecondary level has undergone a clear evolution from purely individual assignments toward team projects, to better reflect needed skills and competencies for real-world career positions. This paper examines student attitudes toward team projects, based on a survey of over 300 respondents, in areas such as relevance to learning objectives, roles played, skills used, team dynamics, and impact on grades, to inform future pedagogical and assessment strategies for future marketing courses.

INTRODUCTION

The use of work teams and the importance of teamwork skills have both increased dramatically over the last two decades in business (Hansen 2006, Applebaum & Blatt, 1994; Taninecz 1997). Numerous studies indicate that more than 80% of organizations, particularly those with over 100 employees, utilize multiple types of workplace teams (Cohen & Bailey, 1997; Sundstrom 1999; Gibson, Randel, & Earley, 2000; Jones, 2004). As a result of this trend, there has been a concomitant rise in the use of team-based learning in business education (Gillespie 2006; Stone 2007). These techniques have been shown to have both benefits and challenges from a pedagogical standpoint, and the purpose of this study is to examine student attitudes that can inform the future of team-based learning.

Hansen (2006) reports that a direct result of this demand for teamwork in business is the trend within business schools to incorporate team building exercises and group projects into their curricula. The literature states that certain skills and benefits are learned and developed through the use of team building exercises and group projects, including teamwork, problem solving, communications and leadership (Alexander & Stone, 1997; Ashraf, 2004; Bolton 1999; Kunkel & Shafer, 1997). Hernandez (2002) additionally reports that team learning promotes active and higher level learning and thinking.

Haberyan (2007) and others have reported that team-based learning has been utilized in science, education, business, and medical education disciplines with positive results (Haidet, O'Malley, & Richards, 2002; Michaelsen, Knight, & Fink, 2004; Seidel & Richards, 2001). Specific benefits include improved student communication skills, group interaction skills and comprehension of complex course concepts, better performance for both high and low achieving students, improved retention of course information, enhanced higher order reasoning and social support within the classroom, and improved critical thinking skills (Gabber, Johnson & Johnson, 1986; Johnson, Johnson & Buckman 1985; Johnson, Johnson & Taylor 1993; Mesch, Johnson & Johnson, 1988; O'Donnell et al, 1985; Vasquez, Johnson & Johnson, 1993; Johnson, Johnson & Smith 1998; White 1998). These benefits also extend to student perceptions, with Haberyan (2007) finding that students view team-based learning as motivating, interesting, and enjoyable, while Hernandez (2002) reported that it improved student motivation and classroom perceptions.

Conversely, problems do exist in team projects, including inadequate preparation, unclear goals, mis-management, conflict, unequal participation, lack of leadership, scheduling conflicts, and lack of team development (Hansen 2006; Bacon, Stewart & Silver, 1999; Bolton 1999; Ettington & Camp, 2002; Rotfield 1998; Cox &

Bobowski, 2000; McCorkle et al, 1999; Rau & Heyl 1990). Brooks and Ammons (2003) detailed free-riding or social loafing as being a prevalent problem in collaborative learning, which can be mitigated through the use of a group evaluation instrument including early implementation, multiple evaluation points and specific evaluative criteria. Fiechtner and Davis (1984 - 1985) reported that factors such as group formation, grading policies, feedback provided, and tasks influenced student perceptions. Moreover, students often cited the instructor's attitude or lack of competence as the reason for dissatisfaction with their learning experience.

At the same time, team-based learning appears to have become a permanent addition to the landscape of post-secondary business education. Gillespie (2006) has indicated that over the past twenty years the use of small groups has become commonplace within college and university classrooms, while Stone (2007) states that teaching students to be effective team members should be a top priority for today's business schools. Stone further states that although the widespread use of student teams by the world's business schools is fortunate, business schools can do more to improve this pedagogical technique.

Buckenmyer (2001), Chen et al (2004) and others indicate that more can be done to explicitly develop teamwork skills and group project abilities in today's business students. At the same time, it is clear that despite these problems and shortcomings, team-based learning and the use of group projects is an effective method of teaching skills necessary to be successful in the business world. Within this context, the purpose of this study is to investigate students' perceptions and expectations of team based learning, to inform its future evolution within marketing curricula, at both a pedagogical and a structural level.

METHODOLOGY

A twenty-question survey was administered to students by the Marketing Management Club at a liberal arts college on the East Coast, over a five-day period at the student center. Although individual survey results were confidential, respondents were tracked to prevent duplicate responses. This survey examined student attitudes towards their experiences with team projects together with demographic information.

A total of **305** responses were received. Demographic information was captured from each of these respondents, but all other questions were only answered by students (n=222) who had actual team project experiences. Respondents included students from freshman through senior class levels, distributed 23.9%, 27.5%, 23.6%, and 18% respectively (with the remaining 7% responding "other"), and approximately a 2.6 to 1 ratio of females to males (220 versus 85). The largest single group (22.3% or 68 respondents) was students of business, with

other major groups including social sciences (20.3% or 62 respondents), liberal arts (18.0% or 55 respondents), and

education (10.2% or 31 respondents). Survey questions were as follows:

I. Demographic and qualifying information

The following questions were asked to classify the demographics of the respondents, and limit the remainder of the

survey questions to students who had been involved in previous class projects:

1. What year did or do you expect to graduate from college?
2. What is your gender?
3. What is your major or specialization?
4. Have you been involved in "team projects" for class projects?

Students answering "no" to this latter question were asked to stop the survey at this point.

II. Team project experiences

5. For your course assignments, how many team projects have you been involved in one academic year? (0, 1-2, 3-4, 5-6, 7-8, 9-10, more than 10)
6. Did you find the team project meaningful and relevant to your learning objectives for the course? (Often, Sometimes, Occasionally, Never)
7. Did you find the team project meaningful and relevant to your learning objectives and your future career goals? (Often, Sometimes, Occasionally, Never)
8. Did you find that there were any members in your team that consistently failed to produce the results required of them for your project? (Often, Sometimes, Occasionally, Never)
9. In your last team project for a course, what was your primary role? (Check one: Organizer, Project Leader, Researcher/Detective (Gathering Info), Creative, Other)
10. Do you believe the instructor should formulate the teams for the class project? (Yes, No)
11. From your past experiences, how has your team tried to create a cohesive and productive group to meet your goals for your course project?
12. List the top two things you learned from working in a team.
13. How confident are you in your ability to: (Rate 1-4 where 1=No confidence, 2=Limited confidence, 3=Moderate confidence, 4=Strong confidence)
    i. work in team projects for course requirements?
    ii. match your work style to suit your team members schedule?
    iii. use time effectively?
    iv. use negotiation skills?
    v. organize ideas and explain them clearly to your team members?
    vi. use listening skills effectively?
    vii. use writing skills effectively in a team project assignments?
    viii. handle team conflict?
    ix. trust your team members commitment to an academic project?
14. Please indicate how much you agree or disagree with each of these statements: (Strongly disagree, Somewhat disagree, Neither agree or disagree, Somewhat agree, Strongly agree)
    i. Overall, classroom team projects affect my course grade positively
    ii. Overall, classroom team projects affect my grade negatively
    iii. Class-related team projects and teamwork will help me in my future career-related work experiences
    iv. Peer evaluations are important in determining each team member's grade for the project
    v. Instructors should require team-building exercises to create a more cohesive team
    vi. Teams should submit interim reports to the instructor prior to the final team project report
    vii. Teams should record meeting times and attendance at team meetings to submit to the instructor with the final project

15.   Considering your most recent team project, rank in order which characteristics best described your role(s) in that project. (Lead the group discussion, Be the mediator/decision maker, Manage and assign responsibilities, Brainstorm ideas for the group, Listen/observe/take notes)
16.   What is your perception of characteristics of an excellent team for a class project?
17.   Please explain any bad experiences you have had working on a team project for a class.
18.   Do you believe a team should have the ability to "fire" a member for not contributing to the class project? (Yes/No)
19.   If you were completing a peer evaluation form specifically to be used in determining each team member's grade; what percentage do you believe should be the weight of the peer evaluation to your final grade in the team project? (0, 1%-5%, 6%-10%, 11%-15%, 16%-20%, 21%-25%, 26%-30%)
20.   What suggestions do you have for making team projects in academic courses more effective?

Results from the survey questions listed above were then coded as follows for further analysis:

- Major and specialization values were grouped into one of the following overall categories: Business, Education, Social Science, Science, Liberal Arts and Other.

- A content analysis was performed on responses to questions 11, 12, 16, 17, and 20, quantifying these responses into "buckets" of between four and six finite responses. In cases where multiple responses were given, the first of these was chosen as a "top of mind" value for analysis purposes.

- Other survey responses were coded as quantitative values as specified by respondents.

Responses to these questions were compiled, and this data was then analyzed for both aggregate responses. In addition, responses to qualitative questions (i.e. 11, 12, 16, 17, and 20) were analyzed relative to demographic factors such as gender and declared major, to assess potential differences in attitudinal responses. The majority of these questions showed minimal differences between males and females, and between business and non-business majors, with exceptions in two areas (questions 11 and 17) noted in the results discussion.
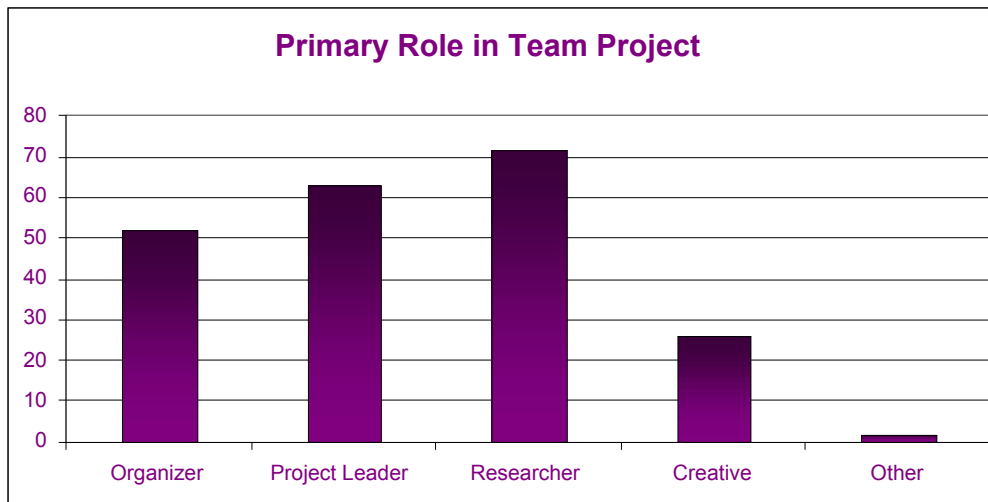
RESULTS AND DISCUSSION

The results of this survey show three clear trends:

- Students are increasingly being exposed to team projects in their coursework,

- They acknowledge the benefits of such projects for both their learning and career objectives,

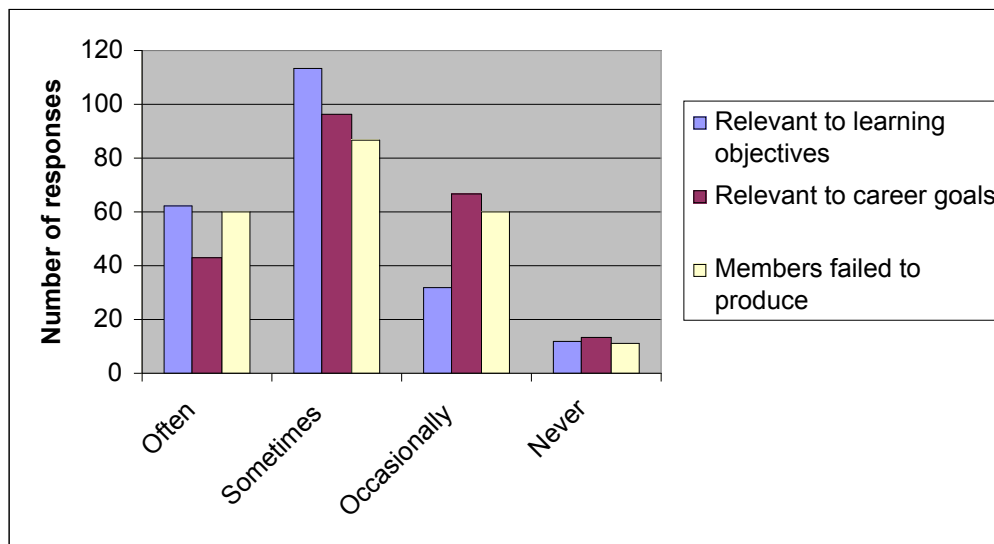- At the same time, they have clear and consistent reservations that could be addressed at a pedagogical level.

For those respondents who had been involved in team projects, the median number of such projects was in the range of 3-4 per academic year, with close to 10% of these (21 out of 222 respondents) having seven or more such projects, and four of them reporting more than 10 such projects per academic year. Students experienced a

broad range of roles within these projects, with Figure 1 showing a broad distribution between organizing, research, leadership, and creative roles.

Primary Role in Team Project

[Bar chart showing values: Organizer ~52, Project Leader ~63, Researcher ~72, Creative ~26, Other ~2. Y-axis from 0 to 80.]

Figure 1. Primary roles within team projects.

As shown in Figure 2, a clear majority of students feel that team projects are relevant to the learning objectives of their course, with 175 out of 219 students responding to this question ranking this "often" or "sometimes", as well as their long-term career objectives, with similar results from 139 of 219 respondents. At the same time, a plurality of these students (147 out of 218) have experienced projects where one or more members often or sometimes failed to produce results expected from them.

[Bar chart titled with Y-axis "Number of responses" (0 to 120) and X-axis categories: Often, Sometimes, Occasionally, Never. Legend: Relevant to learning objectives (light purple), Relevant to career goals (dark red), Members failed to produce (light yellow).]

Figure 2. Student ratings of relevance of team projects to their learning objectives and career goals, versus their experiences with team members failing to meet expectations.

Student self-assessment of learned experiences from team projects reveals a similar dichotomy: Figure 3, which summarizes the results of question 12 (i.e., list two things you have learned from working in a team), shows the perception of "lazy" teammates as ranking highly compared with actionable skills such as teamwork, organization, and communications skills.
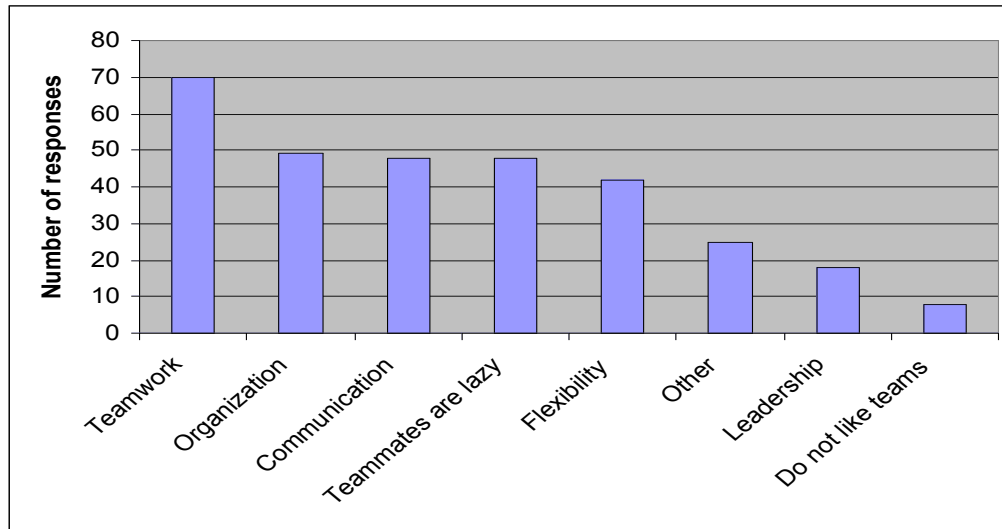
Figure 3. Lessons learned by respondents from working in a team.

Other findings revealed by the survey results include the following:

Students have a clear sense of what would make a team experience go well. When asked about how their teams have tried to create a cohesive and productive group, there was a clear consensus on areas such as well-defined assignments (51% of 128 non-blank responses), holding regular team meetings (37.5%), and effective communication (22.7%). This was one of few questions where there were clear differences involving gender and declared major, with men and business majors ranking each of these three factors almost equally.

Regarding characteristics of an excellent team experience, respondents overwhelmingly cited effective teamwork (69.4% of 216 responses) and good communications skills (24.4%) along with other traits ranging from flexibility to having fun. Similarly, their recommendations for improving the team project experience included more structure (27.7% of 65 responses), such as better guidelines and more intermediary check points, more control over choosing team members (16.9%), and more time to complete projects (12.3%). Notably, 13.8% percent of these respondents recommended doing away with team projects entirely, representing less than 5% of those surveyed who had been involved with team projects, yet a significant percentage of those offering recommendations.

Students frequently report bad team experiences. A majority of respondents who have been involved in team projects (131 out of 222 total respondents) described one or more issues that they characterized as bad experiences. Far and away the majority of these (69.5% of these 131 responses) reported one or more team members not carrying their fair share of the project, while another 16% had team members who were "no-shows" for part or even all of the project activities. Here as well there was one gender difference, with a smaller percentage of men (38.6%, or 22 out of 57 responses) expressing concerns about unproductive teammates. Other concerns shared in the survey included:

- **Coping with different skill levels and perspectives**: For example. one respondent noted, "Someone (had) absolutely no idea what she was talking about," while another noted that the group's evaluation suffered from taking a direction the respondent was opposed to.

- **Conflict**: Common complaints include issues of control, often centering around people battling over leadership roles, taking credit, or reaching consensus on decisions.

- **Impact of other students on each person's grade**: As one respondent put it, "Some (people) don't want to do anything or care about it and it affects my grade", while others reported incidents of team members dropping the course and taking information with them – in one case, even skipping out at the last minute on the team presentation. Conversely, several respondents complained about getting the same grade as the rest of the team after doing a disproportionate share of the project work.

Students have confidence in themselves, but less confidence in the team. Students rated themselves highly in their overall ability to work in a team (3.41 out of 4) and listening skills (3.46 out of 4), and less highly in their ability to handle conflict or trust the commitment of other team members (3.0 and 2.62 respectively), with other competencies such as time management, negotiation, and writing skills rated between 3.0 and 4.0. Similarly, while students felt overall that their team projects affected their grades positively and not negatively (3.64 and 2.37 respectively on a scale of 1 (strong disagreement) to 5 (strong agreement)), and that these projects will help their future careers (4.01) they also in favor as a group in measures such as peer evaluations, interim reports, and attendance records (3.88, 3.46. and 3.55 respectively), as well as being slightly positive toward being taught team skills (3.18).

Overall, the results of this survey point toward three key recommendations for improving the experience of team projects for students, while preserving its current benefits:

1. Re-examine the teambuilding process. Respondents were nearly evenly split (155 versus 150) on the question of whether instructors should take responsibility for forming teams in the future; conversely, among those who responded to the question (217 total responses), respondents felt that students should be able to "fire" non-performing team members by over a three-to-one margin (167 yes versus 50 no). Moreover, while some respondents preferred the ability to work with friends, others welcomed the opportunity to learn from the viewpoints of new participants. Examining alternatives for team formation and orientation serves as a promising area of research for the future, as well as an opportunity to better frame the expectations of a team process for students.

2. Explore ways to assess individual contributions to team projects. The single biggest concern of students remains the impact of unequal levels of effort within a team on personal grades and project outcomes. As a result, it makes sense to examine appropriate metrics and/or weighting for individual efforts within the context of a team project for the future. Similarly, there was strong sentiment for the concept of peer evaluation of performance, as shown in Figure 4, with a median response that this should represent 11-15% of the overall project grade.
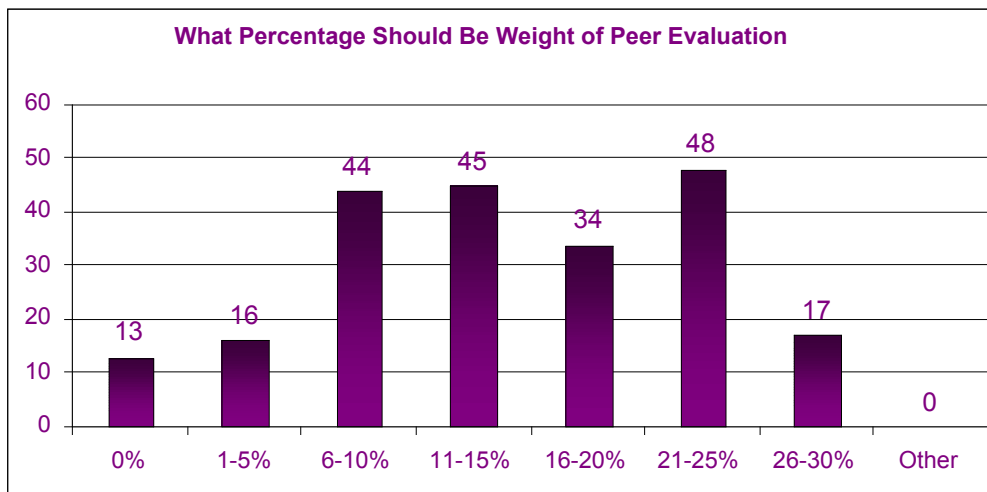
Figure 4. Student ratings of percentage weight of peer evaluation in overall team project grades.

3. Build more accountability into the process. Somewhat surprisingly, students overall expressed little desire to be formally taught team skills, and do not rank team skills issues such as negotiation or conflict resolution as major concerns. At the same time, a significant number of respondents are clearly in favor of accountability measures such

as interim reports and attendance records, both of which are simple, procedural steps that can both foster greater equity and motivate better individual performance.

SUMMARY

Working in teams has become a fact of life in business and marketing workplaces, and academic curricula in marketing have quickly kept pace with this trend. The level of team projects that now form a part of postsecondary education in marketing reflects the modern reality that team skills as well as individual skills are needed for success following graduation.

At the same time, the results of this survey reveal that we don't yet succeed at imparting effective team skills at the level that we teach our own subject matter. It is all too possible for students to let others do the heavy lifting of a team project, and yet reap the benefits of the eventual outcome. Similarly, it is possible for high levels of individual accomplishment to go unrewarded, or even punished, as a result of the factors beyond their control. Above all, it is possible to go through the motions of a team project exercise and still not learn fundamental lessons about the essence of working in teams, ranging from communications skills to the ability to motivate others.

We as educators have the ability to change this situation at a fundamental level, and in the process change the way we prepare students for future marketing careers. By making structural and pedagogical changes that balance the lessons of team projects with accountability for individual and group effort, we have the potential to change both student perceptions and educational outcomes for such team experiences. These changes represent modest but potentially high-impact enhancements to the practice of marketing education, and the study and measurement of such changes remains a promising area for further study.

REFERENCES

Alexander, M.W., & Stone, S.F. (1997). Student perceptions of teamwork in the classroom: An analysis by gender. *Business Education Forum*, 51(3), 7-10.

Applebaum, E., & Blatt, R. (1994). *The new American workplace*. Ithaca, NY: Cornell University Press.

Ashraf, M. (2004). A critical look at the use of group projects as a pedagogical tool. *Journal of Education for Business*, 79, 213-216.

Bacon, D.R., Stewart, K.A., & Silver, W.S. (1999). Lessons from the best and worst student team experiences: How a teacher can make a difference. *Journal of Management Education*, 23, 467-488.

Bolton, M.K. (1999). The role of coaching in student teams: A 'just-in-time' approach to learning. *Journal of Management Education*, 23, 233-250.

Brooks, C.M., & Ammons, J.L. (2003). Free riding in group projects and the effects of timing, frequency, and specificity of criteria in peer assessments. *Journal of Education for Business*, 78(5), 268-272.

Buckenmyer, J.A. (2001). Using teams for class activities: Making course/classroom in teams work. *Journal of Education for Business*, 76, 98-107.

Chen, G., Donahue, L.M., & Klimoski, R.J. (2004). Training undergraduates to work in organizational teams. *Academy of Management Learning and Education*, 3(1), 27-40.

Cohen, S.G., & Bailey, D.E. (1997). What makes team work: Group effectiveness research from the shop floor to the executive suite. *Journal of Management*, 23, 239-290.

Cox, P.L., & Bobrowski, P.E. (2000). The team chapter assignment: Improving the effectiveness of classroom teams. *Journal of Behavioral and Applied Management*, 1, 92-103.

Ettington, D.R., & Camp, R.R. (2002). Facilitating transfer of skills between group projects and work teams. *Journal of Management Education*, 26, 356-379.

Feichtner, S.B., & Davis, E.A. (1984-1985). Why some group fail: A survey of students' experiences with learning groups. *Organizational Behavior Teaching Review*, 9, 58-73.

Gabber, B., Johnson, D.W., & Johnson, R.T. (1986). Cooperative Learning, group-to-individual transfer, process grain, and the acquisition of cognitive reasoning strategies. *Journal of Psychology: Interdisciplinary and Applied,* (120(3), 265-278.

Gibson, C.B, Randel, A.E., & Earley, C.P. (2000). Understanding group efficacy: An empirical test of multiple assessment methods. *Group & Organizational Management*, 25(1), 67-97).

Gillespie, D, Rosamond, S., & Thomas, E. (2006). Grouped Out? Undergraduates' default strategies for participating in multiple small groups. *The Journal of General Education*, 55(2, 81-102.

Haberyan, A. (2007). Team-Based learning in an Industrial/Organizational Psychology Course. *North American Journal of Psychology*, 9(1), 143-152.

Hansen, R. (2006). Benefits and problems with student teams: suggestions for improving team projects. *Journal of Education for Business*, 82(1), 11-19.

Haidet, P.O., O'Malley, K.J. & Richards, B. (2002). An initial experience with "team learning" in medical education. *Academic Medicine*, 77, 40-43.

Hernandez, S.A. (2002). Team learning in a marketing principles course: Cooperative structures that facilitate active learning and higher level thinking. *Journal of Marketing Education*, 24, 73-85.

Johnson, D.W., Johnson, R.T., & Buckman, L.A. (1985). The effect of prolonged implementation of cooperative learning on social support within the classroom. *Journal of Psychology: Interdisciplinary and Applied*, 119(5), 405-411.

Johnson, D.W., Johnson, R.T., & Smith, K.A. (1998). Cooperative learning returns to college: What evidence is there that it works? *Change: The Magazine of Higher Learning*, 30(4), 26-35.

Johnson, D.W., Johnson, R.T., & Taylor, B. (1993). Impact of cooperative and individualistic learning on high-ability students' achievement, self-esteem, and social acceptance. *Journal of Social Psychology*, 133(6), 839-844.

Jones, G.R. (2004). *Organizational theory, design, and change* (4th Ed.). Upper Saddle River, NJ: Prentice-Hall.

Kunkel, J.G., & Shafer, M.L. (1997). Effects of student team learning in undergraduate auditing courses. *Journal of Education in Business*, 72, 197-200.

Livingston, D., & Lynch, K. (2002). Group project work and student centered active learning: Two different experiences. *Journal of Geography in Higher Education*, 26, 217-317.

McCorkle, D.E., Reardon, J., Alexander, J.F., Kling, N.D., Harris, R.C., & Lyler, R.V. (1999). Undergraduate marketing students group projects and teamwork: The good, the bad, and the ugly. *Journal of Marketing Education*, 21, 106-117.

Mesch, D., Johnson, D.W., & Johnson, R. (1988). Impact of positive interdependence and academic group contingencies on achievement. *Journal of Social Psychology*, 128(3), 345-352.

Michaelsen, L.K., Knight, A.B., & Fink, L.D. (Eds). (2004). *Team-based learning*. Sterling VA: Stylus.

Michaelsen, L.K., Razook, N.M. (1999). Making learning groups effective. *Selections*, 16(1), 28-36.

O'Donnell, A., Dansereau, D., Rocklin, R., Hythecker, V., Lambiotte, J., Larson, C., & Young, M. (1985). Effects of elaboration frequency on cooperative learning. *Journal of Educational Psychology*, 77, 572-580.

Rau, W., & Heyl, B.S. (1990). Humanizing the college classroom: Collaborative learning and social organization among students. *Teaching Sociology*, 18, 141-155.

Rotfield, H. (1998). Hello, bird, I'm learning ornithology. *Marketing Educator*, 17, 4-6.

Seidel, C.L., & Richards, B. (2001). Application of team learning in a medical physiology course. *Academic Medicine*, 76, 533-534.

Stone, R.W., & Bailey, J.J. (2007). Team conflict self-efficacy and outcome expectancy of business students. *Journal of Education for Business*, 82(5), 258-266.

Strong, J.T., & Anderson, R.E. (1990). Free-riding in group projects: Control mechanisms and preliminary data. *Journal of Marketing Education*, 12, 61-67.

Sundstrom, E. (1999). The challenges of supporting work team effectiveness. In E. Sundstrom & Associates (Eds.), *Supporting work team effectiveness: Best management practices for fostering high performance* (pp. 3-23). San-Francisco: Jossey-Bass.

Taninecz, G. (1997). Best practices and performances. Industry Week, 246, 28-43.

Vasquez**,** B., Johnson, D. W., & Johnson, R. T. (1993). The impact of cooperative learning on the performance and retention of U.S. Navy air traffic controller trainees. *Journal of Social Psychology*, 133(6), 769-783.

White, L.F. (1998). Motivating students to become more responsible for learning. *College Student Journal*, 32, 190-196.