Team Learning in a Marketing Principles Course: Cooperative Structures That Facilitate Active Learning and Higher Level Thinking

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This article examines team learning as a comprehensive pedagogy designed to facilitate active learning and higher level thinking. The key features of team learning and traditional learning are compared to provide a rationale for change for both marketing faculty and students. A detailed description of the new pedagogy and the steps necessary for its implementation are presented. The instructional activity sequence and other aspects of the team learning course design are discussed, as well as their role in creating effective cooperative structures. Students from a day section and from an evening section of a marketing principles course reported favorable attitudes toward team learning. Suggestions on how to get started are offered for marketing faculty members who might be interested in the adoption of this new pedagogy. Future research is needed for comparing the effectiveness of team learning to traditional learning in the marketing classroom.

The aim of this article is to get marketing faculty interested in the adoption of team learning. The article examines the key features of team learning as a pedagogy designed to facilitate active learning and higher level thinking. Student self-reported attitudes toward this new pedagogy are presented for a day section and an evening section of a marketing principles course.

The Gap

Although many college faculty share the belief that active learning is best for their students, they experience limited success in getting students to participate in class. Many instructors resort to questions to try to get their students to actively participate in class discussions. When they manage to get active student participation through questions, a very small minority of students tend to dominate. In classes of fewer than 40 students, 4 to 5 students account for 75% of all the interactions (Karp and Yoels 1987). Team learning makes real on the promise of active learning. Under team learning, most students actively participate most of the time as opposed to the use of lecture or the use of questions.

The problem is compounded by the type of questions that college faculty ask to solicit student participation. Close to two thirds of all teacher-posed questions called for responses involving rote memory rather than higher level thinking skills (Barnes 1983).

In addition to lectures and the use of questions, an increasing number of faculty today are using experiential learning activities as part of their teaching. Experiential learning activities stimulate active learning since they provide a chance for students to apply the concepts and theories they learn to real-life situations. Use of experiential learning activities in the marketing education literature has been reported in recent years for various marketing courses: marketing research (Bridges 1999; Graeff 1997; Hamer 2000), introduction to marketing (Schibrowsky, Peltier, and Collins 1999), services marketing (Gremler et al. 2000), and for integrating marketing courses (Bobbitt et al. 2000). Experiential learning constitutes a departure from traditional learning, but the existing literature has only provided suggestions on specific experiential learning exercises, not on a comprehensive pedagogy to stimulate active learning and higher level thinking.

What Is Team Learning About?

Team learning or cooperative learning is not about the semester-long group project, typically involving a paper, or about the occasional in-class group activities. Team learning is about the creation of cooperative structures, as part of a course design, that are effective in promoting active and deep learning (higher level thinking) in the classroom. Team learning is about the creation of cooperative structures that stimu-

late positive interdependence and individual accountability among students working in small groups (Cooper 1990; Millis and Cottell 1998). Team learning is about faculty using the power of the team to get their students to accomplish learning objectives (Michaelsen and Black 1994). Team learning is a pedagogy consistent with the new "learning paradigm" in higher education. Within this new paradigm, instructors are seen as designers of learning environments that improve on the quality of student learning rather than deliverers of content knowledge (Barr and Tagg 1995).

COMPARING TEAM LEARNING TO THE TRADITIONAL COURSE

Since students have experienced for the most part traditional methods of learning throughout their academic life, they exhibit some initial resistance to change. Because of it, they need to be "sold" on team learning as compared to the traditional course (Schaffer 1995). The instructor should compare the key features and the effectiveness of the traditional course to the team learning course on the first day of class. This provides the initial rationale for change.

What Is Learning?

In the traditional course, learning is equated with recall or memorization. The instructor lectures, and the students memorize the material covered in class for the exam. In the team learning course, learning is equated with higher level thinking. Recall or memorization represents the lowest level of learning outcomes in the cognitive domain (Bloom 1956). Team learning emphasizes deep learning or higher-level thinking. Using Bloom's (1956) taxonomy of cognitive levels, team learning is about stimulating student thinking at the application, analysis, synthesis, and evaluation levels (see Table 1). Bloom's taxonomy has been widely used in the marketing education literature (Green 1997; Hamer 2000; Krentler, Hampton, and Maftin 1994; Moon et al. 1998; Nonis and Hudson 1999).

In the traditional classroom, the instructor is the only source of legitimate knowledge, while students for the most part are passive learners. The instructor is the key actor in the traditional classroom; she or he is on center stage in front of a passive audience. The instructor suffers from "The Atlas Complex," bearing on his or her shoulders the responsibility for all aspects of the course (Finkle and Monk 1983; Millis and Cottell 1998). On the other hand, team learning recognizes multiple sources of knowledge: the individual student, her or his teammates, her or his classmates, and the instructor. As a result, there is a better utilization of people as resources for learning. In the team learning classroom, students are the key actors of the learning process, while the role of the instructor is that of facilitator of this process. The students are the ones on center stage; the spotlight shines on them most of the time.

TABLE 1
BLOOM'S TAXONOMY OF COGNITIVE LEVELS FROM LOWEST TO HIGHEST

1. Recall
2. Comprehension
3. Application
4. Analysis
5. Synthesis
6. Evaluation

SOURCE: Adapted from Bloom (1956).

Effectiveness of Team Learning versus Traditional Learning

Most students are bored with traditional courses, where the professor lectures most of the time. Hardly any objective evidence needs to be provided here to convince students that traditional learning/teaching methods are not "fun." Students can examine their own experience, and most will agree that this is the case.

In a similar manner, employers do not need to be convinced that traditional learning is failing to produce the type of employees that they need. They know it. They need employees who can apply what they have learned and who can analyze, evaluate, and find solutions to problems. That is, they need employees with higher level thinking skills. Instead, they are getting graduates who are good at memorizing facts. In the era of computers and databases, this is an obsolete skill.

Employers also need employees who know how to work effectively with others. Self-managed teams are performing increased amounts of work in many organizations today. It is estimated that in the next few years, 40% to 50% of the U.S. workforce may work in some kind of empowered team (Stewart, Manz, and Sims 1999). However, traditional learning methods are producing individualistic graduates who know more about how to compete against each other than about how to collaborate with others in achieving a common goal.

Although group projects are being used today in many college courses, they often yield as many negative student experiences with collaboration as positive ones (McCorkle et al. 1999). Many group projects teach very little to students about how to collaborate with others in achieving a common goal. What is missing is a comprehensive pedagogy that creates learning environments that are conducive to effective student collaboration.

Team learning is "one of the most thoroughly researched of all instructional methods" (Slavin 1989-90, p. 28). According to Johnson, Johnson, and Smith (1991),

> During the past 90 years more than 600 studies have been conducted by a wide variety of researchers in different decades with different age subjects, in different subject areas,

TABLE 2
RESEARCH ON THE EFFECTIVENESS OF TEAM LEARNING

Finding	*Authors*
More effective for promoting student higher level thinking skills than lecture	Kulik and Kulik (1979); Smith (1977, 1980); McKeachie (1988)
More effective for promoting student learning and achievement than traditional instructional methods	Johnson et al. (1981); Slavin et al. (1985); Dansereau (1983)
More effective in increasing student retention than traditional learning methods	Tinto (1975); Astin (1985); Wales and Sager (1978); Treisman (1985)
Promotes significantly higher levels of student satisfaction with the learning experience than lecture	Bligh (1972); Kulik and Kulik (1979)
More likely to result in positive student attitudes toward the subject matter than lecture	Kulik and Kulik (1979)
More likely to promote development of student oral communication skills than traditional methods	Neer (1987)
More likely to promote student self-esteem than traditional methods	Johnson and Johnson (1987); Slavin (1987)
More likely to promote positive race relations than traditional methods	Slavin (1980); Forehand et al. (1976)

SOURCE: Adapted from Cooper et al. (1990).

and in different environments. We know far more about the efficacy of cooperative learning than we know about lecturing, departmentalization, the use of instructional technology, or almost any other facet of education. (p. 44)

Table 2 summarizes the key findings of the research on the effectiveness of team learning at the college and precollege levels (Cooper et al. 1990). The research base provides strong support for the effectiveness of team learning as compared to traditional learning methods.

THE INSTRUCTIONAL ACTIVITY SEQUENCE (IAS)

A well-designed course should start with clearly defined learning objectives. Learning objectives that reflect higher level thinking should guide the development of test questions and team activities.

Michaelsen (1994) has outlined a six-step IAS that is at the heart of the team learning course design (see Figure 1). An earlier version of Michaelsen's team learning approach (Michaelsen, Watson, and Shrader 1985) was described in the marketing education literature by Schaffer (1995) for a marketing research course. Although Schaffer outlined some of the major components of the team learning course design, the more complete IAS pedagogical process was later developed by Michaelsen.

Individual Study

The first step represents a radical departure from the traditional course: students, not the instructor, are responsible for covering the material. Students study on their own the assigned reading material in preparation for a mini-test or quiz. Students are challenged to demonstrate good understanding of the key concepts in the test by the use of questions that de-emphasize memorization in favor of deep learning.

READINESS ASSURANCE

1. Individual Study of Assigned Reading Material
2. Individual Quiz
3. Team quiz
4. Written Team Appeals
5. Instructor Input
6. Application Oriented Activities
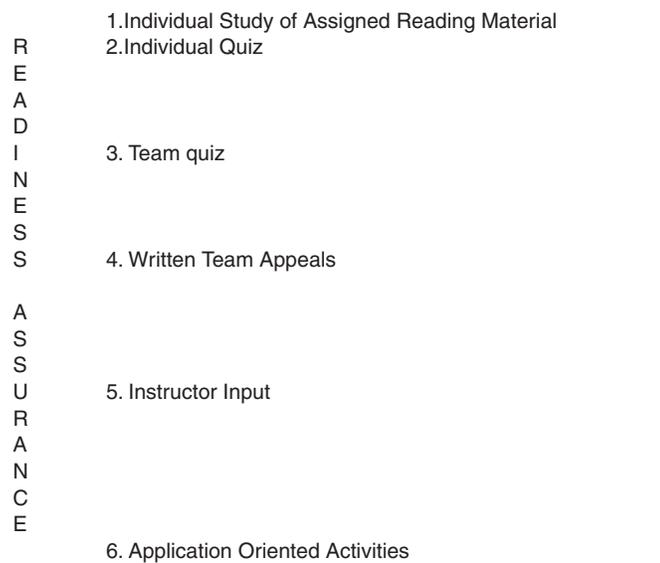
FIGURE 1:   Team Learning Instructional Activity Sequence
SOURCE: Adapted from Michaelsen (1994).

Test questions require students to comprehend, apply, analyze, synthesize, and/or evaluate. Bloom's (1956) taxonomy can be very useful for this purpose (see Table 1). In the marketing education literature, Green (1997) recommended use of Bloom's taxonomy to help question writers test higher cognitive thinking skills.

Individual study of the material is not an easy task for most students, particularly since they are accustomed to traditional teaching where instructors "digest" the material for them. Undergraduate students may be overwhelmed not only by the complexity of the task but also by the lack of structure—having to make their own decisions concerning what parts of the material are more important than others. Here, the instructor can provide study questions in advance of the test to signal students as to what concepts are more important and to indi-

cate the level of understanding that is required of them. Furthermore, students who answer the study questions as part of their individual study for the quiz are adopting an active learning strategy that is more effective than the more typical passive learning strategies for studying such as highlighting the text (Nist and Diehl 1998).

Readiness Assurance

Students need to demonstrate that they have a good understanding of the assigned material before they get to think about and apply key concepts through in-class team activities. Without it, deeper learning during class time would not be possible. The readiness assurance process (RAP) increases students' preparedness for applying the concepts they have studied individually (Michaelsen and Black 1994). Hamer (2000) failed to ensure student preparedness in a study of the impact of multiple experiential techniques involving group work on lower and higher level learning in a marketing research course. He acknowledged the lack of a process for ensuring that all students have read the material before coming to class as the main limitation of his study.

Individual quiz. The process starts with an individual quiz or mini-test of the assigned material, given at the beginning of each major unit of instruction (Michaelsen and Black 1994). The questions are designed in accordance with learning objectives. Test questions should signal that deep learning of the key concepts is required and that a study strategy emphasizing rote memorization would result in failure. Test questions should require learning involving cognitive levels above recall or memorization in the Bloom (1956) taxonomy (see Table 1). Instructors need to be cautious in selecting questions from test banks that often accompany course texts. Krentler, Hampton, and Maftin (1994) analyzed standardized test banks of four major principles of marketing texts and found that a large percentage of the questions tested memorization and recall skills rather than critical-thinking skills. Jacobs and Chase (1992) is a great source of advice for writing multiple-choice and short-answer questions using Bloom's taxonomy. They suggested wording that can be used in test questions to tap into each level of thinking.

Team quiz. After completing the individual quiz, students retake the quiz in their teams. They provide answers with the full cooperation of their teammates. Teams debate their answers to the quiz questions, and in the process, individual members improve their understanding of key concepts. Team tests also provide the opportunity for groups to become cohesive and to enhance the quality of students' experiences with learning teams (Fiechtner and Davis 1985).

Following the team quiz, the instructor provides immediate feedback indicating the correct answers. One way of doing this is by using an overhead transparency that displays question numbers with the corresponding correct answers.

Written team appeals. Teams are entitled to an appeal process for missed questions. The purpose of the appeal is to get students to restudy potentially troublesome concepts. Also, teams have a chance to challenge the reliability and validity of test items. All appeals are in writing. Students are instructed to provide adequate support for their claims. Typical appeals provide support for claims quoting passages from the textbook. Schaffer (1995) suggested that marketing faculty be lenient in granting appeals as to encourage students to further learn the material through the appeal process.

Instructor input. RAP ends with instructor input on concepts that still remain unclear. The instructor could at this point ask the class if there is a need to go over questions that proved to be troublesome to clarify the concepts involved. She or he can then clarify the concepts or, even better, ask students who understand them to help clarify them for their classmates.

According to Michaelsen (1994), RAP takes approximately 20% of total in-class time, while students spend the remaining 80% in application-oriented activities. Students in my marketing principles course spent about 15% of total in-class time in RAP and 70% in team activities, and I spent about 15% of the time lecturing or clarifying concepts.

Application-Oriented Activities

Team activities need to be designed as to stimulate deep learning while promoting team cohesiveness. Cohesive teams tend to be more effective than teams that lack cohesion (Mullen and Copper 1994). To function effectively, a group has to cohere, that is, "hang together," to generate a "we feeling" among members (Johnson and Johnson 1987, p. 408). Group cohesion increases the power of the team over individual members. Instructors can then use the cohesive power of teams to get students to practice higher level thinking through group activities. Learning groups that fail in our college classrooms often do so because they lack cohesion.

According to Michaelsen, Fink, and Knight (1997), the best activity available for building group cohesiveness is RAP, and the worst activity is group term papers. Group papers seldom provide any support for building group cohesiveness since writing is inherently an individual activity and members divide up the work so that they can complete it independently without teamwork. McCorkle et al. (1999) in their study of the use of group projects in marketing courses concluded that there is a lower likelihood of an equal distribution of labor among group members for a written group project than for a group oral presentation.

In addition to promoting team cohesiveness, team activities should challenge students to use their higher level cognitive skills. The degree to which assignments stimulate higher level cognitive skills is a function of how the assignments are phrased (Michaelsen, Fink, and Knight 1997). Team assign-

ments that require "make-a-list" tasks often stimulate recall rather than higher level thinking. Also, students may simply extract items from the text to record as part of their list. On the other hand, "make-a-specific-choice" tasks require students to at least analyze and evaluate the received information before selecting the best choice or course of action.

Activities should be designed about realistic problems or be relevant to student lives. Such activities tend to improve student motivation to learn individually and as a team. For instance, students in the marketing principles class responded very favorably to an activity requiring them to design a retail strategy for the college store. Many students shop at the store on a regular basis (relevance) and are dissatisfied customers (realistic problem). Activities that reflect realistic problems and are relevant to student lives help build group cohesiveness. Students are likely to expect more favorable outcomes from membership in groups that engage in these activities and, consequently, will be more attracted to these groups.

A Sample Activity

The role of marketing in a firm can be better understood by the marketing management philosophy that such firm practices. These marketing management philosophies are commonly referred to as production, sales, marketing, and societal marketing orientations (Lamb, Hair, and McDaniel 1998).

Individual study and RAP. Students cover this material on their own and are tested on it as part of RAP. In addition, a figure is provided with the specific characteristics corresponding to each orientation. They are asked to write individually for about 5 minutes on the question, "What marketing management philosophy does the university that you attend follow?" They are asked to support their answer with evidence from their own experience on the specific characteristics of the chosen orientation. This in-class writing is also a form of individual study or preparation prior to the team activity.

Application-oriented activity. Then, they join their teams and are instructed to share their answers and to make a specific choice concerning the marketing management philosophy that the university practices. Teams then report their specific choices to the class. Not only does a good amount of debate take place within teams on this question, but also there are good opportunities following the team reports for a class debate since not all teams are likely to agree on their choice. This assignment also has a favorable impact on group cohesiveness since it is relevant to student lives and poses a realistic problem for students to solve. In addition, group cohesiveness is enhanced since groups have to share their responses with the class and need to defend their responses from the external threat of intergroup comparisons (Michaelsen, Fink, and Knight 1997).

Benefits of IAS

There are various important benefits of IAS that support its inclusion at the core of the team learning course design.

Students are responsible for covering material. One of the developmental opportunities of team learning is for students to learn effective study skills. The problem is that since instructors in traditionally taught courses digest the material for them, students can get away with passive learning strategies that rely on rote memorization. This problem is accentuated by the fact that most students do not receive formal training on how to study effectively. Furthermore, the stigma often associated with learning centers at college campuses as "remedial" centers prevent many students from getting the training that they need on how to study effectively.

A short intervention in class by the learning center on the use of active learning strategies for studying can help further the development of students study skills. A small test group of students in a marketing principles class found such intervention to be helpful. Student journals indicate that many benefited from adopting more effective study strategies that helped them increase their quiz scores in the course or study more effectively for other courses. The challenge of team learning is for students to grow as learners, and that in many cases would involve acquiring more effective study skills.

Maximizing active and deep learning. Because instructors free themselves of the burden of covering material through lectures, they can use most class time to facilitate active and deep learning through team activities. This would not be possible without RAP.

Improved retention of the material. IAS is very effective in exposing, reinforcing, clarifying, and getting students to apply the assigned concepts. Students are exposed to the material first through their individual study. Key concepts are further reinforced through the individual quiz, team quiz, and team appeal process. The instructor then clarifies concepts that remain unclear. Finally, students apply and think about the assigned concepts. Consequently, improved student retention of the material is a typical outcome of IAS.

Improved instructor effectiveness. The problem with lectures is that instructors do not know how well students understand the material until is too late to do anything about it—the date of the exam. IAS improves the instructors' knowledge of the students' level of understanding and the instructors' ability to intervene more effectively. After RAP, instructors have a chance to lecture only about concepts that still remain unclear. Instructors have additional opportunities for intervention as teams work in application-oriented activities or after they have reported their responses to the class. Opportunities abound for student feedback on their level of under-

standing of the material and for instructor feedback to students on how to further their learning.

Effective cooperative structure. RAP promotes mutual interdependence (positive), individual accountability to the group, and group cohesiveness. Ineffective groups lack these elements. The team quizzes and the team appeal process further mutual interdependence by creating a situation in which all team members share a common fate. They will all succeed or fail in getting a "good" team grade based on the overall performance of group members. RAP facilitates individual accountability to the group since teams become aware of the performance of each member. Because of it, members feel more pressured to do their share or else face team disapproval or rejection. RAP also allows teams to become more cohesive. As teams start to achieve some success, whether in the form of a team grade or in the form of better understanding of the material, students start to like and feel more committed to their teams. Teams in turn gain more power over their members.

Team activities, by imitating the key features of the team quizzes and team appeals in RAP, can be designed to promote mutual interdependence, individual accountability to the group, and group cohesiveness. This does not necessarily mean that team activities need to be graded. Teams can still share a common fate without grades: "We learn how to apply the concepts or we don't," and/or "We present a good report to the class or we become a source of ridicule." Teams are always aware of the performance of their members whether grades are involved or not. Teams can also experience successes based on outcomes other than grades, such as productivity in completing tasks and member satisfaction with team learning.

OTHER ASPECTS OF COURSE DESIGN THAT PLAY A ROLE IN CREATING EFFECTIVE COOPERATIVE STRUCTURES

In addition to IAS, there are other elements of the course design that contribute to the creation of effective cooperative structures. These include team selection, rotating roles, team-building activities, peer evaluations, and allocation of team resources.

Team Selection

Teams should be formed by the instructor. Students are more likely to have a positive team learning experience in classes where groups are formed by the instructor, and they are also more likely to list the group as being a worst team experience when students get to choose their own groups (Fiechtner and Davis 1985). Michaelsen (1994) explained that letting students pick their own groups often results in a barrier to team cohesiveness since they tend to pick their

friends, and other group members that do not belong to this subgroup are likely to feel excluded.

Michaelsen (1994) suggested that instructors select teams to spread member assets and liabilities evenly among the groups. Bacon, Stewart, and Stewart-Belle (1998) in their study of predictors of team project performance in marketing courses offered a similar recommendation. One such asset/liability is their potential for academic achievement. Information is obtained on students' GPAs from the registrar's office as a proxy measure of this potential; then spread students with high, medium, and low GPAs evenly among the groups. The instructor could use other criteria for group selection. Data can be gathered on students' backgrounds on the dimensions important to group success, and then students can be allocated to groups in a fair manner based on these dimensions (Michaelsen 1994; Millis and Cottell 1998).

The selection of heterogeneous groups (i.e. gender, ethnicity) is preferable given the advantages that different perspectives offer for team learning (Redding 1990). Also, diverse students working together in a team striving to achieve common goals often result in improved racial/ethnic relations (Slavin 1989-90).

Permanent groups are preferable to temporary groups. Permanent groups, for the duration of the course or a signification portion of it, offer the best opportunities for group cohesiveness to develop (Fiechtner and Davis 1985). Students in temporary groups do not have an incentive to make a significant commitment to the group or have enough interaction time to assume a team identity.

Teams should be small enough to facilitate meaningful face-to-face interaction (Johnson and Johnson 1987). Groups of four or five students seem to be an appropriate number for team learning. Students are likely to feel that their participation and effort are needed by the group, and the group can remain operational even when one or two members are absent (Millis and Cottell 1998).

Rotating Roles

Each member should be assigned a responsibility or role that the team needs to function effectively. This prevents a student from taking charge of the group or from not participating since all roles are vital to the team's effective functioning. Team roles foster mutual interdependence among team members. The team roles used in this marketing principles class have worked well in college and university classrooms: group facilitator, group recorder, reporter, timekeeper, and wildcard (Millis and Cottell 1998). The group facilitator is responsible for moderating all team discussions, keeping the group on task for each assignment, and ensuring that everybody assumes their share of work involved. The group recorder is responsible for picking and taking care of the team folder and the team activity instructions. The recorder summarizes group discussions and prepares the group's activities

in writing. The group reporter is the spokesperson for the group. The timekeeper is responsible for keeping the group aware of time constraints for any activities. Finally, the wildcard assumes the role of any missing member or fills in however they are needed. A more detailed description of these roles appears in Millis and Cottell (1998).

Roles should rotate after every class. They enable students to develop skills associated with the various roles. Students left to their own devices will tend to take on roles they feel most comfortable playing or that are easier for them to perform, which may get in the way of developing other important team skills. For instance, unless a rotating role structure is in place, it is very unlikely that a shy or introverted student would take on the role of reporter, missing the opportunity to develop important communication skills.

Team-Building Activities

Team building should be among the first activities implemented to encourage group cohesiveness (Cooper and Mueck 1990). A first-day activity that is used in the marketing principles class requires team members to introduce themselves to one another and to set a group grade for the course that they want to strive for as a team (team goal). This activity is followed by a team-norming activity in which members are required to agree on a set of ground rules or norms for effective group work based on their positive and/or negative experiences with past groups. Although many teams later develop their own set of norms as part of their group development, the initial ground rules provide some guidelines on what constitute desirable member behaviors.

Peer Evaluations

Peer evaluations are key in promoting individual accountability to the team. In the marketing literature, Williams, Beard, and Rymer (1991) and Beatty and Hass (1996) expressed the importance of individual accountability to the group for team projects to achieve their full potential. Research indicates that when peer evaluations are used, three out of five students report a best group experience; by contrast, when no peer evaluations are used, only one student in three reports a best group experience (Fiechtner and Davis 1985). The peer evaluation is an effective tool in preventing social loafing and free riders in learning groups. Two peer evaluations are preferable, one at the midpoint and one at the end of the semester. The use of only one peer evaluation at the end of the term does not allow members to receive the necessary feedback for improving their team productivity. The midsemester peer evaluation is formative in nature. Students have a strong incentive to be honest in their midsemester peer evaluations since (1) the peer ratings that each member assigns remain confidential, (2) students realize that the peer ratings do not affect individual group grades, and (3) they are anxious to know how they stand with their teams. Each member's average peer rating is calculated. Then a "straight-talk" activity is used to get members to share their peer ratings and to praise and offer constructive feedback to each other. The student journals reveal that although some discomfort may initially exist in giving and receiving straight talk, most students consider the activity to be beneficial for member and team development. Often, student journals report the perception of greater group cohesiveness following the activity.

Allocation of Team Resources

Instructors should allocate limited resources to teams to foster mutual interdependence and discourage members from working alone or ignoring the team discussion (Johnson and Johnson 1987). Instead of distributing a set of activity instructions to each member, instructors should distribute one set of instructions per team. Each team should receive one team folder to store team quizzes and activities, not multiple folders per team. Also, allocating limited amounts of time per activity puts pressure on teams to work productively, with the participation of each member, to complete the task.

EFFECTIVENESS OF TEAM LEARNING IN A MARKETING PRINCIPLES COURSE

This section provides evidence on the effectiveness of team learning in the marketing principles course. The data collected are from end-of-semester course evaluations and student journals involving both a day and an evening section of the marketing principles course.

Thirty-two students were enrolled in the evening class during the 1999 spring semester. Most students taking this class were adult students working full-time and enrolled in the evening school. Thirty-five students were enrolled in the day class during the 1999 fall semester. Most students taking this class were traditional students enrolled on a full-time basis. Both sections were evenly split in terms of gender.

Only 5 out of 32 (16%) students were marketing/advertising majors in the evening section, while 13 out of 35 (37%) students were marketing/advertising majors in the day section. Most students were taking marketing principles to fulfill a business core requirement, not because of their interest in the subject matter.

End-of-Semester Course Evaluations

The course evaluation form was divided into eight main sections representing key elements of the course: meeting learning objectives, course impact on learning, team learning, journals, class discussion, quizzes, the instructor, and overall evaluation. Only those aspects of the course evaluation that are more relevant to team learning outcomes are reported here. Therefore, the discussion will be limited to meeting learning objectives, course impact on learning, and team learning.

TABLE 3
MARKETING PRINCIPLES FINAL COURSE EVALUATION: MEDIAN RESPONSES ON
SELECTED ASPECTS (STRONGLY AGREE, AGREE, DISAGREE, STRONGLY DISAGREE)

Response	Evening Section	Day Section
Course impact on learning		
This course diminished my interest in marketing	Strongly disagree	Strongly disagree
This course helped me become a better learner by providing me with opportunities to reflect about my own learning	Agree	Strongly agree
This course provided few opportunities for higher level learning, as opposed to memorization or recall	Disagree	Strongly disagree
This course was a great learning experience	Strongly agree	Strongly agree
Team learning		
The team experience in this course was the best I ever had in my college courses	Agree	Strongly agree
I learned very little from my teammates in this course	Disagree	Strongly disagree
I enjoyed the team learning in this course as opposed to more traditional forms of learning in other courses	Strongly agree	Strongly agree
My study group proved to be very useful when studying for the quizzes	Strongly agree	Agree

NOTE: Scores ranged from 1 to 4. A *strongly agree* answer was coded 4 for a response on a positive statement and 1 for a response for a negative one.

Meeting learning objectives. Students were asked to indicate how well learning objectives were met in the course (*very well*, *well*, *not that well*, or *not well at all*). The Learning Objectives Scale contained 16 items for both the evening students ($\alpha = .91$) and day students ($\alpha = .89$). Only 2 of 16 learning objectives were directly relevant to team learning: (1) improve student ability to work effectively with others, and (2) students will actively attend and display interest in marketing as a subject matter. Ninety-seven percent of the evening students and 100% of the day students indicated that both objectives were met well or very well in the course. The median answer for the first objective was *very well* for both day and evening students. The median answer for the second objective was *well* for the evening students and *very well* for the day students. Given that most students were not marketing majors, it is remarkable that most felt that the objective "to actively attend and display interest in marketing as a subject matter" was achieved well or very well. It is possible that day students were more initially inclined to actively attend and display interest in marketing since more day than evening students were marketing majors.

Course impact on learning. Students were asked to state their level of agreement/disagreement with four statements concerning the course impact on their learning. The Course Impact on Learning Scale had a satisfactory level of reliability for evening students ($\alpha = .84$) and for day students ($\alpha = .69$). Positive statements were alternated with negative statements to prevent response bias. The alternative answers were *strongly agree*, *agree*, *disagree*, and *strongly disagree*. The results are presented in Table 3.

Both day and evening students' median response is to strongly disagree with the statement "this course diminished my interest in marketing," confirming the earlier finding about interest in marketing as an objective that was met well

through team learning. Evening students' median response is to agree with the statements that the course helped them become better learners and that the course provided many opportunities for higher level learning as opposed to memorization or recall, while day students strongly agree with both statements. Evening and day students' median response is to strongly agree with the statement that the course was a great learning experience. The team learning course seemed to have a significant positive impact on learning for both groups of students.

Team learning. Table 3 also shows students' responses to four statements on their team learning experience in the course. The Team Learning Scale had a modest but acceptable level of reliability for evening students ($\alpha = .67$) and for day students ($\alpha = .78$). The evening students' median response is to agree, while the day students strongly agree with the statement, "The team experience in this course was the best I ever had in my college courses." Evening students disagree, while day students' median response is to strongly disagree with "I learned very little from my teammates in this course." The median answer for both groups is to strongly agree with the statement, "I enjoyed the team learning in this course as opposed to more traditional forms of learning in other courses." Day students agree while response and evening students' median response is to strongly agree with "My study group proved to be very useful when studying for the quizzes." Students perceived team learning as a best group experience where they learned a good deal from their teammates and where they had lots of fun doing so. Day students reported equal or slightly higher scores than evening students with the exception of study group usefulness.

An unexpected finding was the effective use of out-of-class study groups by most students. For many years, I have encouraged students, both day and evening, to form

out-of-class study groups but without much success until team learning was used in the course. In this course, no study groups were in operation for the first marketing quiz. By the end of the semester, 90% of the evening students and 74% of the day students had participated in study groups, and the majority perceived them to be very useful in studying for the quizzes. This success can only be attributed to team learning. Out-of-class study groups represent a logical continuation of the effective work that teams perform in class. The widespread use of study groups may also be a reflection of the high level of cohesiveness achieved by most teams.

End-of-Semester Student Journals

The use of reflective journal writing has been recommended for assessing student learning in cooperative learning groups (McNeill and Payne 1996). Students in both evening and day sections were asked to write a one-page journal entry for the last week of class reflecting on their learning experience in the course and their growth or lack of it as learners. This journal entry is often reserved each week for students to write about anything they want as long as it is connected to the course or their group experience. In the evening section, 26 journal entries out of a possible 32 met the new requirement, while in the day section, 34 journal entries were received out of 35 students. Sample student reflections are displayed in Tables 4 and 5. Their open-ended reflections were coded in terms of various response categories. The number of student reflections per response category appears on the second column of the tables. Typical journal entries revealed multiple reflections. Thus, the number of coded reflections exceeds the number of journal entries: 64 reflections to 26 entries for evening students and 99 reflections to 34 entries for day students. The reflections from day and evening students provide evidence of a variety of positive outcomes associated with the team learning experience. Evening students' reflections provide evidence of (number of reflections in parentheses) personal growth (9), positive team experiences (9), development of more effective study skills (8), course enjoyment (6), being able to relate course material to everyday life (6), improved learning and retention (5), appreciation for diverse perspectives (5), metacognition (4), good understanding of what marketing is about (4), ability to apply concepts (3), positive future outcomes (3), and other positive outcomes (2), in that order.

Day students' reflections provide evidence of positive team experiences (18), improved learning and retention (13), positive future outcomes (12), course enjoyment (10), metacognition (9), other positive outcomes (9), development of more effective study skills (8), good understanding of what marketing is about (7), personal growth (4), appreciation for diverse perspectives (3), ability to apply concepts (3), lack of growth (2), and being able to relate course material to everyday life (1).

The different results in the number of reflections per response categories between evening and day students can in part be accounted for by the different sample sizes. Also, evening students tended to emphasize more personal growth and their increased ability to relate course material to everyday life in their entries as opposed to day students. On the other hand, day students tended to emphasize themes on positive outcomes and positive future outcomes in their writings. Finally, 2-day students reported on their lack of growth as learners in this course, suggesting that team learning may not meet the needs of all students.

In Sum

The data collected from end-of-semester course evaluations and student journals provide support for the effectiveness of team learning in two marketing principles sections. Johnson, Johnson, and Smith (1991), after reviewing the research literature on team learning, concluded that

> The more one works in cooperative learning groups, the more that person learns, the better he understands what he is learning, the easier it is to remember what he learns, and the better he feels about himself, the class, and his classmates. (p. 44)

The findings presented here on the effectiveness of team learning in two sections of a marketing principles class appear to be consistent with the above conclusion and the existing research base.

GETTING STARTED

Problem Recognition

The first step is to recognize that you have a problem with your teaching. You need to be dissatisfied with the teaching methods that you are using. Most educators today are moving along in the process of using experiential learning and understanding active learning principles. However, if you still experience a gap between the goals of active and deep learning and the reality of student passive learning in the classroom, you have a problem.

Once you recognize that there is a problem, you need to understand its nature. A good start is to study the research literature on cooperative learning. Many of the key studies are included in the References section of this article. The research by Michaelsen and associates and the work of Millis and Cottel (1998) are particular useful in understanding this problem and in implementing the team learning pedagogy. To skip this important step amounts to attempt to solve the problem without fully understanding what the problem is about.

Start Slowly

College faculty members who lecture most of the time and have little experience with the use of in-class groups should

TABLE 4
MARKETING PRINCIPLES: REFLECT ON YOUR LEARNING EXPERIENCE IN THIS COURSE
AND YOUR GROWTH OR LACK OF IT AS A LEARNER: EVENING SECTION ($n = 26$)

Response Category	Number of Reflections	Journal Entry
Personal growth	9	I have been able to identify my strengths and weaknesses when working with a group.
		I am a very shy person, now I just feel that I am more confident about talking to the class.
		This course by far, has been one of the most effective influences in my growth as a learner.
Positive team experience	9	I enjoyed working in a group for the first time in my life.
		I have learned quite a bit from them [teammates] about marketing.
		My teammates were wonderful.
Development of more effective study skills	8	I have learned other more productive ways of studying . . .
		I am able to learn and retain so much more . . . more effectively and deeply . . .
		I learned how beneficial a study group is . . .
Enjoyed course	6	Team learning make the class more interesting.
		It was a pleasure taking this class . . .
Relating course material to everyday life	6	I was able to see ways marketing was affecting us in our daily lives.
		I have noticed the course material coming up in my life more and more . . .
Appreciation for diverse Perspectives	5	Listening and sharing ideas help me understand the concepts.
		I was surprised to how easily I related to my team despite very different ages, cultural and educational backgrounds.
		Everyone had a valid point to make and a different way of looking at things.
Learned and retained more	5	I learned more in this course than in other courses.
		[Quizzes] helped me a lot in understanding the concepts more easily.
		I learned that by participating in class you retain more . . .
Metacognition	4	My understanding of the Bloom Taxonomy of Learning has helped to evaluate how I prepare [study].
		Being introduced to the Bloom Taxonomy helped me understand the difference between true learning and memorizing facts.
Good understanding of what marketing is about	4	I learned that marketing is not only a step but an important process.
		Coming into this class I thought marketing was just selling and advertising.
Able to apply concepts	3	I enjoyed this approach to learning because it involved the actual application of the topics . . .
Positive future outcomes	3	I hope that there would be more use of the [team] format in graduate classes.
		I'm eager to apply what I learned about learning to other classes . . .
		My major is marketing and this class has really got me excited about what more is to come.
Other positive outcomes	2	I've never seen a class more prepared for class than I have in this one.
		I was able to make friends right away.
Total reflections	64	

not jump into team learning completely. These faculty might begin using cooperative learning simply by pausing after 15 to 20 minutes of lecture and asking pairs of students to reflect on the lecture material (Cooper and Mueck 1990). The instructor could develop activity sheets asking these temporary groups questions that relate to the lecture or asking for real-world examples of the concepts presented in the lecture. The use of this activity, also know as the "clarification pauses technique," has been reported in the marketing education literature (Hamer 2000).

Another more advanced step in the direction of cooperative learning could involve the use of team quizzes in combination with individual quizzes. After experimenting with the team quizzes, the instructor may feel ready to engage in a more radical experiment such as the RAP or even the entire IAS.

Instructors at a more advanced stage of experimentation may want to pilot test a section of a regularly taught course using team learning. This will allow them to compare the effectiveness of team learning with other sections of the same course where they are using more traditional methods.

FUTURE RESEARCH

The results described in this article concerning student responses to team learning in a marketing principles course, although positive, can be best characterized as exploratory findings. What is needed is experimental research that compares the effectiveness of team learning to traditional learning. One or more sections of marketing principles could be taught using team learning while one or more sections could be used as control groups where traditional learning is being applied. A standardized exam can be developed to assess student mastery of key marketing concepts in both experimental and control groups. Questions could be developed that assess student learning along the lines of Bloom's (1956) taxonomy in terms of lower and higher level thinking.

TABLE 5
MARKETING PRINCIPLES: REFLECT ON YOUR LEARNING EXPERIENCE IN THIS
COURSE AND YOUR GROWTH OR LACK OF IT AS A LEARNER: DAY SECTION (*n* = 34)

Response Category	Number of Reflections	Journal Entry
Positive team experience	18	I learned a lot by getting feedback from my teammates. We all worked together very well and I will miss them. I hope that I can have many group experiences similar to this one.
Learned and retained more	13	I learned a great deal in this class. I have never had a course in college that has allowed you to learn in so many different ways. I learned things that are probably not possible in other courses.
Positive future outcomes	12	Hopefully other professors will learn this learning style and bring it inside their classrooms too. Walking away from this class I feel more comfortable about entering the job market. What I learned in this course will help me achieve a better understanding of the material in all of my classes.
Enjoyed course	10	I really enjoyed this marketing class. I loved this course. This class has been a lot more fun than most of my other classes.
Metacognition	9	This class has taken my learning from recall to comprehension, application, analysis, synthesis and evaluation. The saying goes "No one is smarter than all of us." Indeed, this is a concept that finds its true meaning in teamwork.
Other positive outcomes	9	Given the fact that I just transfer last semester, this class helped me meet a lot of great people. This class was one of the few classes that I wanted to come everyday.
Development of more effective study skills	8	I found an easier way to study actively that efficiently makes myself retain clearer information than I had in the past. I have learned to use this technique in my other classes which has helped me greatly because now I learn and understand not recall and memorize.
Good understanding of what marketing is about	7	I was effectively able to piece together the big picture of marketing through our active learning and group work. I came out of this class with a better understanding of what marketing is all about.
Personal growth	4	Working in a group helped me greatly to grow out of my shyness. This course by far, has been one of the most effective influences in my growth as a learner.
Appreciation for diverse perspectives	3	I got to hear other people's opinions that you normally don't hear . . . We would give each other different views and this allowed me to be more open minded.
Able to apply concepts	3	In this course I don't have to worry about not understanding certain concepts because we get to apply these concepts through group activities. The group projects made me not only learn the information but use it.
Lack of growth	2	I barely learned much by this process. My illness may have been a factor . . .
Relating course material to everyday life	1	Then by relating the courses to real life it makes it more interesting for me.
Total reflections	99	

Another question worthy of future research is whether students who use team learning in a marketing principles course are better prepared in marketing than their counterparts as they graduate. This research question requires a longitudinal study. Student learning prior to exit from the institution could be measured for both groups of students through a comprehensive exam. An increasing number of business schools are administering comprehensive tests to senior students to assess the educational outcomes of their programs. These tests also provide an assessment of students' level of achievement within a field of study and could be used to determine if seniors who use team learning in their introductory course are better prepared in marketing than those who use traditional learning.

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