THE USE OF TEAMS IN AN UNDERGRADUATE MANAGEMENT PROGRAM

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In recent years, business publications and corporate recruiters alike have reported that businesses are increasingly looking for college graduates who can work effectively in teams and understand management processes. Whereas many undergraduate management faculty use teams for case study analysis, as in strategic management courses, few actually give students a hands-on opportunity to experience teamwork in an organizational setting with all the basic demands, challenges, and regimen of managerial work.[1] This article describes a unique two-course sequence, Management 301 and 302, which has provided just such a team-based learning experience to more than 5,000 management majors at Western Michigan University since the program's inception in 1968.

Program Structure and Operation

The Management 301-302 program consists of two courses taken by junior- and senior-level management majors in successive 15-week semesters. Figure 1 shows the structure of the current program. The program is primarily built around hierarchical student teams, which consist of a manager, two or three supervisors, and 10 to 12 subordinates who report to the supervisors.[2]

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Students in Management 301, which is a prerequisite for Management 302, are placed in the role of subordinates in the hierarchically structured teams. These students work on two projects, each lasting 6 weeks, as members of two separate teams during the course of the semester. Half of the students in the second course, Management 302, are placed in the roles of team managers or supervisors for the hierarchical teams. This permits development of a pyramid-shaped hierarchy, with the ratio of subordinates to managers and supervisors ranging from 2:1 to 3:1.

The other half of the Management 302 students are assigned to peer-structured consulting teams called task force teams. Task force teams work on a project for a community client at the same time the hierarchical teams are conducting their feasibility studies. The Management 302 students switch roles at the end of the first project. There is usually an attrition rate of 10% to 15% between Management 301 and 302. In a typical semester, enrollment is about 60 students in Management 301 and about 50 students in Management 302. Enrollment is generally about evenly split between men and women.

Both courses have a standard 50-minute lecture/discussion segment that meets three times per week for the first 2 weeks of the semester. Starting in Week 3, when the project and task force teams are formed, the lecture/discussion segment meets only on Mondays. Management 301 topics include program orientation, elements of the project report, oral presentations, appropriate business dress, data collection, leadership, and performance appraisal. Management 302 topics include resume preparation (students apply for positions as managers or supervisors), objective setting, performance appraisal, and stress management. Once the projects have started, a 2-hour block of time (analogous to a laboratory in a science course) is reserved on Wednesdays and Fridays for weekly team meetings.

Students in the two courses are assumed to work for the Management Development Corporation (MDC), a fictitious firm. Similar to a real corporation, MDC has written policies and procedures within which each team must operate. During the two-course sequence, students gain experience working on three hierarchical teams and one peer-structured task force team. One of the faculty members assigned to the program (currently there are three of us) assumes the role of the president of MDC and coordinates the entire program. The others assume the roles of vice presidents. All faculty in the program direct student teams.

HIERARCHICAL TEAMS

Hierarchical teams work as project teams conducting a complete feasibility study of a new product or service for MDC. Soon after the hierarchical

Week(s)	*Management 301 Students*	*Management 302 Students*
1 and 2	Orientation lectures given by faculty member in charge.	All students meet together. Orientation lectures given by faculty member in charge. One half of students assigned as managers or supervisors on the first project. The other half are assigned to task force teams. At the end of the first project, students switch assignments.
3 to 8	Subordinate is on first 6-week project team.	Manager or supervisor is on first 6-week project team. Task force team member or manager works for client assigned under direction of a vice president.
9 to 14	Subordinate moves to second 6-week project team.	Management 302 students change roles for second project.
15	University-wide examination week. No final examination is given in Management 301 or 302, although teams receive feedback on the second project during this week.	

Figure 1: Overall Structure of Current Management 301-302 Program, Assuming a 15-Week Semester

teams have been formed, managers and supervisors meet with their respective vice presidents, who typically supervise three or four teams each. This orientation session provides an opportunity for vice presidents to communicate expectations and for the management team to clarify concerns and other issues. Managers and supervisors encounter some variation in the style of vice presidents and the way they prefer to handle such tasks as topic approval, progress reports, and performance evaluations. A substantial orientation packet is also provided as a reference.

Managers are typically asked to have their teams generate ideas for new products or services for approval by the vice president. When approval is obtained, the team is responsible for conducting a full feasibility study of such a business, ranging from a refinement of the business concept to projected financial statements and analysis for the first 3 years of operation.

Progress Reports

The managers and supervisors of each team, who are all Management 302 students, are responsible for producing a detailed work plan that is typically 10 to 15 pages long. The work plan breaks the project down into assignments for the subordinates, who are all Management 301 students, and recommends some sources for collecting data. It also specifies dates when progress reports on these assignments, such as market analysis, are due for presentation to the team's vice president. Progress reports are made in rooms that simulate a corporate board room. The team members are in business attire, and the session begins with the team manager bringing the vice president up to date on the team's progress. Teams frequently use Gantt charts or similar planning devices to illustrate their progress.

Students responsible for the progress reports to be presented at a particular session give 5- to 7-minute presentations on their assignments. Each presentation is videotaped. Typically, two or three members of a team report during a session. Students use a variety of audiovisual aids, ranging from the traditional overhead projector to computer-implemented presentation programs. The vice president asks content questions of each presenter. Then, the vice president replays a segment of each presentation and gives the presenter specific feedback, including suggestions for improvement. The vice president assigns a grade for each Management 301 student's presentation during the project. Presentation grades on each project constitute 15% of the Management 301 student's grade or 30% total for both projects.

Each project culminates in a formal final presentation in which the team showcases its findings and recommendations to the vice president and a guest. The guest is usually a local business person whose role is to ask questions of the team members and make observations from the vantage point of a person unfamiliar with the proposed product or service. This process reinforces the importance of clarity in the presentation and the written report.

The Written Report

The written report of each feasibility study is comprehensive in nature and generally runs from 30 to 50 pages. Although reports vary somewhat in format, all cover such basic topics as business concept and design, market analysis and demand, competition, advertising, operations, and staffing. Each report also includes projected balance sheets and income statements for the first 3 years of operation. At the end, the team makes a recommendation to MDC on whether the proposed business is feasible. If the team recommends implementation, the report becomes, in essence, a business plan.

Report grading stresses accuracy of research, clarity of presentation, and strength of financial analysis. In all cases, grades are dependent on the quality and appearance of the report and not on the feasibility of the idea. Each team is given written and oral feedback on its report and final presentation by its vice president. The grade on each hierarchical team's report constitutes 20% of a Management 301 student's grade and 25% of a Management 302 student's grade. Because each Management 301 student works on two

	Per Project	Total
Management 301 students		
Presentation grades	15	30
Final written report	20	40
Performance appraisals	15	30
		100
Management 302 students		
Final written report	25	50
Vice president evaluation	25	50

Figure 2: Program Grading (in percentages)

hierarchical team projects per semester, the report grades constitute 40% of his or her grade. Program grading is summarized in Figure 2.

Performance Appraisals

Each subordinate receives two performance appraisals, one for each project, which together make up 30% of the Management 301 student's grade. Informal appraisals are also done midway through the project to give subordinates an opportunity to alter behaviors that are deemed inappropriate or in need of modification. Supervisors complete appraisal forms on their subordinates and give them to their manager for review. The manager reviews the forms and gives them to his or her vice president for review and signature. The forms are then returned to the supervisors who review them with their subordinates in one-on-one sessions.

Team managers complete appraisals of their supervisors and make grade recommendations to their vice presidents. The vice presidents then complete appraisals on the team managers and supervisors and grade their performance. These appraisals make up 50% of the Management 302 student's grade. Performance in the hierarchical team as a manager or supervisor makes up 25% of the grade. The other 25% is based on a peer appraisal of performance on a task force team. The remaining 50% of a Management 302 student's grade comes from the written report grades received in the hierarchical team and task force team experiences.

Challenges for Managers and Supervisors

Team managers and supervisors face the challenges of performing the basic managerial functions of planning, leading, organizing, and controlling taught in every principles of management course. In the planning area, managers and supervisors must work with their subordinates to identify and solve problems, set objectives, apportion work, and schedule team meetings. Similar to real-world managers, they have finite resources and firm deadlines. They soon find they are not immune from Murphy's Law. Managers and supervisors shape the structure of their teams depending on the nature of the business being investigated, and they learn to make assignments based on the ability and interest of subordinates.

Managers and supervisors must motivate their subordinates to perform, and similar to regular employees, student team members have values and priorities competing for attention. Other activities, such as delegating, communicating, conducting meetings, and resolving conflict, further test the abilities of novice managers. Conflict frequently arises between subordinates or between subordinates and their supervisors. Student managers and supervisors may ask to consult with a faculty member on how to resolve a problem, but most of the time they are able to work problems out satisfactorily on their own. Finally, formal controls have to be devised and implemented for the same reasons they are needed in any organization. Student managers and supervisors truly encounter the same sorts of problems they will face on the job after graduation.

According to the student managers and supervisors, their biggest challenge is completing performance appraisals and giving feedback to subordinates. This is not surprising, because operating managers tend to make the same observation. However, graduates of the program consider the evaluation process one of the most useful aspects of their education in terms of preparation for their first management job.

TASK FORCE TEAMS

Task force teams differ from hierarchical teams in four ways. First, each team is comprised entirely of members who have gained substantial management and research experience while completing two projects as subordinates in Management 301. They have experienced firsthand such tasks as problem identification, data gathering, and report preparation. Second, each task force team has only four or five members, compared to an average of about 15 on a regular team. Third, the task force team manager has less formal authority than a project team manager. He or she is responsible for scheduling meetings and serves as a primary point of contact for the client and the team's vice president but is otherwise a peer in the team. Fourth, the formal performance appraisal process of the regular teams is replaced by a peer evaluation administered by the task force vice president after the final presentation. The task force vice president is responsible for obtaining suitable clients for projects from the local business community and overseeing the work of each task force team. Typically, four or five task force projects are done in each 6-week segment. In all, 8 to 10 such projects are done per semester.

Task force teams may work on a wide variety of projects. Some clients desire a full feasibility study, much like the ones done by the hierarchical teams. Other clients may only be interested in one aspect of a project, such as a market survey for a new product or the best location for a new store. The extensive work plan of the regular projects is usually replaced with a simple bar chart that shows assignments and completion dates. The emphasis in the task force experience is to have Management 302 students use those parts of their Management 301 training that are needed to complete the project. In this sense, the task force experience is a transition from the training-based orientation of Management 301 to an applications-based orientation that is more typical of the use of teams in business.

Task Force Mechanics

The task force vice president meets with all the task force teams on the first day of the project. Students are assigned to teams, usually by a random process. The vice president stresses that client confidentially must be maintained throughout the project, and each student signs a confidentiality agreement at the start of the project. Standards of conduct, ethical considerations, and expected behavior are also explained to the students because, as task force team members, they are seen by the community at large as representatives of the university.

Each task force team then meets with its client to determine what the team is expected to do during the project. Similar to its hierarchical team counterpart, each task force team makes weekly progress reports to its vice president. At the end of the project, each task force team presents its client with a written report of its work at a formal presentation. The purpose of the report and the presentation is to give the task force team members additional experience in written and oral communication. Because clients often use the results of these reports to make actual business decisions, the vice president needs to make sure that each task force team is well prepared to answer questions at the final presentation. The vice president grades each report and assigns a performance grade to each task force team member. The performance grade takes into account peer evaluations and may be higher or lower than the grade assigned to the written report. The report grade and the vice president's performance grade each make up 25% of the task force team member's grade.

In the past 15 years, task force teams have completed more than 400 projects for community clients. The vast majority of these clients are small businesses, but task force teams have also done projects for local nonprofit organizations and several divisions of the university. Throughout the years, clients have expressed a high level of satisfaction with the work of task force teams. Because students receive no remuneration from the client for their work, they are quite candid in making recommendations to clients.

Comparison to Hierarchical Teams

The task force experience is deliberately designed to be less structured than that of the hierarchical project teams. It provides students with an opportunity to work as consultants, in which knowledge and interpersonal skills, not authority, are the keys to success. Students who have been both managers of a hierarchical team and a member of a task force team report that both are valuable learning experiences and that one is not any more difficult or time-consuming than the other.

Program Observations

The program we have described is a significantly different educational experience, both for the students who take it and the faculty members who direct it. We offer the following observations to those who might consider starting such a team-based educational experience.

STUDENT PERFORMANCE

Students will rise to the occasion and perform in a very professional manner. Once students understand the structure of the program, they assume complete responsibility for ensuring their project gets done on time. With rare exceptions, students set higher performance standards for themselves across all dimensions of team projects than we would set for them as faculty members. Many times, we have seen students with grade C averages in their other courses really come alive when they have a chance to work as a member of a team. For them, experiencing management as a member of a team is much more meaningful than hearing about it in a lecture.

Student managers and supervisors find their most difficult managerial activity is completing performance appraisals on subordinates. They are uncomfortable making written judgements about how people perform. Vice presidents usually have to work with managers and supervisors on a one-on-one basis the first time performance appraisals are completed. Other managerial activities the students find particularly difficult are making formal oral presentations and motivating subordinates.

STAFFING, TEACHING, AND SCHEDULING

Staffing Considerations

The program requires one faculty member for each 30 to 35 students. One faculty member functions as course coordinator (president of MDC). This person handles program planning and grading, schedules project events for each semester, assigns students to teams, makes team assignments to the vice presidents, and resolves the grievances that inevitably arise over performance evaluations.

Faculty in this kind of program should, first and foremost, be committed to experiential learning, which is an observation also made by Miller (1991). Faculty members cannot do their jobs from a lectern or podium. Because of the program design, faculty are constrained to interact with students each semester (we offer the sequence three times per year) in multiple roles at a minimum of 6 to 8 contact hours per week for 3 hours of teaching credit.

Faculty should have broad-based, applied business knowledge. Although they need not be expert in all the functional areas of business and their subsets, they do need a working knowledge of each because the projects and reports involve the full range of business activities. Faculty also need to be team players who are willing to act as role models for students in terms of behavior, values, and appearance. In our experience, faculty with business or military backgrounds have performed well.

Faculty Roles

Program faculty function in three roles: teachers/professors, vice presidents of MDC, and consultants. Faculty who deliver the weekly Management 301 and 302 lectures function in the familiar professor role. At weekly progress reports and final presentations, they are vice presidents of MDC in business dress receiving project updates on the various aspects of their teams' research. In this capacity, they ask questions about schedule and content and may make suggestions. At these same sessions, they change hats to become professors again, giving feedback to each student on presentation style, including recommendations for improvement.

As consultants, faculty may be approached in every setting from office hours to hallways to restaurants with questions about any and all aspects of the task at hand. In this capacity, the faculty member will usually make specific recommendations that the team member may or may not implement.

Interaction With Students

There is a sense of fluidity about the job of faculty in this program. Whereas one may argue that any professor in a traditional course plays multiple roles, the difference lies in the systematic nature and intensity of these role obligations in the case of Management 301-302. The relationship between faculty and students in Management 301-302 is closer to coach and athlete than it is to the traditional faculty/student relationship. Most of this activity occurs in a nonclassroom setting and dictates faculty schedules that are characterized by availability.

Considerable faculty time is spent making large numbers of on-the-spot decisions in several role capacities. The traditional professor may have to decide in a few cases each semester whether to allow a student to take an exam late or to change a paper topic. In contrast, Management 301-302 faculty must answer questions and make decisions about a broad array of topics. Many questions have to do with the basic elements of the research project, such as business concept, market analysis and demand, competitive analysis, sales forecast, patents, and financial statements.

Novel business concepts sometimes present additional challenges with regard to tasks such as market analysis and demand. One recent project investigated the feasibility of a travel agency for the physically challenged. How does one gain access to a sample of potential customers to determine interest in such a service? What are the limits of disability that can be accommodated? Students always require assistance with questions of sampling and questionnaire construction. All research instruments must be reviewed and approved by the team's vice president before administration.

Many questions revolve around people problems. Each semester, a few subordinates are discontent about a performance evaluation. When disagreements with the evaluation cannot be resolved with the supervisor and team manager, they are brought to the team vice president and the president of MDC for resolution. Subordinates also come to their vice presidents with problems they are having with supervisors or managers, for example, "My supervisor and manager are not available to me when I need help." In some cases, team managers and supervisors have presented vice presidents with problems such as incompetence or an abusive management style. Managers have been terminated and replaced with a supervisor, whereas supervisors have occasionally been replaced by a promising subordinate. Students who are terminated are given an assignment by the president of MDC for which they cannot receive a grade higher than a C. Patterns of complaints by subordinates help to discriminate between a single malcontent subordinate and a real problem with a member of the management team.

Some people problems are brought to the vice president by managers and supervisors, for example, "I have tried everything I know to motivate this subordinate (or team) and I'm getting nowhere." These students do not, in most cases, have a crystallized management style and engage in trial-and-error behavior. Managers and supervisors frequently need coaching about dealing with people problems. Some of this happens during the project, and some occurs in postproject feedback given by the vice president to the individual manager or supervisor.

On the lighter side, some students are remarkably naive about business and managerial behavior, including business dress. Individual advice in this area is given privately so as not to embarrass the student. One of our faculty members had to show so many students how to tie a necktie that he prepared a handout on the subject.

Scheduling Considerations

We feel it is important to deliver the program over two semesters. The principal reason is the need for some form of organizational memory to provide continuity beyond the faculty assigned to the program. Because all Management 302 students have completed Management 301, they assist the faculty in passing program culture and expectations on to incoming Management 301 students. It would be very difficult to maintain the sense of an ongoing organization if we had to start from scratch with totally new students each semester. We do not use teaching assistants because of the short time they could commit to the program and the limited experience and knowledge they could contribute.

For a few years, we delivered the program in 1-hour periods on Monday, Wednesday, and Friday. However, most teams needed more than 1 hour to conduct their meetings or give progress reports to their vice presidents. Our solution was to have both Management 301 and 302 designated as laboratory courses, with a 1-hour lecture period on Monday and 2-hour blocks of time on Wednesday and Friday for meetings and presentations. The courses remained at 3 credit hours despite the increase in weekly contact hours from 3 to 5.

Conclusion

Each of us has been involved with the Management 301-302 program for more than 15 years. We see the practical experience that students gain from the program as a valuable addition to the traditional lecture-based classes that constitute the majority of their degree programs. Students actually get to apply what they have studied in other classes. They do not simply study organizational behavior; they are immersed in it in a team setting. Indeed, we see the program to be in line with the recommendations of the influential study of business education conducted by Professors Lyman Porter and Lawrence McKibbin (1988). In their view, the primary purpose of a business school is to make its graduates effective from the moment they accept employment.

Graduates of the program also speak highly of it. A 1991 survey of graduates of the program from 1980 to 1990 showed that more than 90% of them rated the program as good to excellent. Many commented that the program built their self-confidence and gave them something additional to use in marketing themselves during job interviews. Others mentioned the value of the research and presentation skills that, in come cases, were put to use almost immediately on their first job after graduation. Comments were also received about the value of learning to work cooperatively with others on teams. The task force experience was also singled out as providing an opportunity to work for a real business while still in school. Program graduates who come back to visit us always have vivid memories of the projects they worked on, indicating the Management 301-302 experience was an intense one for them.

If a primary goal of business education is to produce graduates who can work effectively on teams and understand management processes, our experience has taught us that this goal can be better achieved through team-structured courses such as the Management 301-302 program rather than through the exclusive use of lecture-based classes. As one of our graduates wrote to us shortly after he had accepted a job offer, "This program sure bends a recruiter's ear."

Notes

1. A notable example of the hands-on approach to teaching business subjects is the introductory management course taught at Bucknell University (Miller, 1991). The course is organized around a semester-long organizational and managerial project in which teams of freshmen and sophomores design and run their own companies.

2. Management 301 students have traditionally been referred to as subordinates, emphasizing the superior-subordinate relationship that exists in a hierarchical team. Reflecting the trend

on the part of firms such as Wal-Mart to use the term *associate* rather than *subordinate* or *employee*, Management 301 students are now usually referred to as associates. To maintain consistency, the term *subordinate* is used throughout, although the term *associate* could also have been used.

References

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