

## TEACHING AND EVALUATION IN AN INTEGRATED CURRICULUM

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There is intense debate over the state of management education. Porter and McKibben's (1988) study maintained that business schools of the 1980s were complacent and urged faculties to adjust, mend, and modify MBA education. Porter and McKibben described a lack of integration of subject matter as a major deficiency in most MBA curricula:

Cross-functional integration is not receiving the attention it deserves. . . . The modern world of business . . . does not present problems and decisions neatly packaged and exclusively within a marketing, finance, accounting, or some other single functional box.

MBA students should learn to view management as a process—as a series of complex, integrated decisions—rather than as discrete, functionally oriented steps. To accomplish this end, they recommended that MBA programs integrate their curricula through several means: overall curriculum modification, an integrative capstone course, and revision of functional courses to include integrative material—in short, “reflecting, in some way or another, a greater level of cross-functional integration than is currently the case in order to match the multifunctional nature of business problems” (Porter & McKibben, 1988).

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**Author's Note:** The curriculum development and evaluation process presented in this article would not have been possible without the Babson College One Year MBA faculty team of 1992-1993. Team members consisted of Roberto Bonifaz, Edward Cale, Steven Eriksen, Robert Eng, Michael Fetters, Indra Guertler, James Hoopes, Ralph Kimball, Larry Ponnemon, Ashok Rao, Natalie Taylor, Ronald Teichman, and Jennifer Starr. Babson's vice president of academic affairs, Allan Cohen, and its graduate dean, Thomas Moore, also provided invaluable support. Requests for reprints should be sent to Phyllis Fineman Schlesinger, Olin Hall 248, Babson Park, Wellesley, MA 02157.

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Shifting to a cross-functionally integrated program is an extremely difficult task for business schools. Most schools are organized by functional area, a reflection of the discipline-based training of faculty. The courses that faculty teach are driven by functional requirements and faculty interest. As we who study organizational behavior know so well, the existence of these functional "stovepipes" may lead to interdivisional problems—divisions of faculty members who do not talk to one another, rivalries due to discipline-based enmity, lack of understanding about what others teach, or derogation of one discipline or another. Developing a truly cross-functional, integrated curriculum requires a tremendous amount of work on the part of faculty and administration.

Despite the difficulties inherent in developing cross-functional activities, many institutions (such as the universities of Tennessee, Michigan, and Pennsylvania) have been revising their curricula to meet the needs of the organizations of the future. Faculty members at my institution, Babson College, have been deeply involved with MBA curricular reform for the past 5 years. We have developed an entirely new model for the first year of the MBA program, one that is highly integrated and cross-functional and that does away with "courses" as we traditionally know them.

We began our move to the integrated curriculum with the establishment of a One Year MBA program, beginning in 1991. This article describes how we struggled with the development of integrated course material and with evaluation of student ability to think about management as a process rather than as individual functions or activities. I share our experience in the hopes that we can open a dialogue about curricular change and learn from each other's successes and failures.

### **The One Year MBA Program at Babson**

The One Year MBA program at Babson is a program for students with undergraduate business degrees from American Assembly of Collegiate Schools of Business (AACSB) accredited institutions who have at least 3 to 5 years of work experience. The summer of 1993 was the second class, with 30 program participants.

Students begin their work in late May with a 2-week residency and then attend a set of required classes through August. After successfully completing the intensive summer program, the class joins students from the regular second-year MBA program. The One Year MBA group meets together in the fall and spring for two courses to complete its MBA core requirements.

## Curriculum Design

The One Year MBA curriculum is designed to build on, not repeat, the students' undergraduate education (see the outline of the program in Appendix A). Because students have graduated from an AACSB accredited institution, we assume a common base of knowledge of functional topics such as preliminary accounting, finance, marketing, and organizational behavior. Although students' work experience varies, all have been working in jobs that have required them to incorporate their undergraduate training in their day-to-day activities. Students' jobs include financial analysts, technical sales and marketing, personnel and training, and owning and operating small businesses. We know that not every student may remember every functional area with the same clarity. Each student receives a prework packet before the program. This packet is a collection of materials from different areas. We run "refresher" sessions so that students can work with faculty members in each discipline.

The summer opens with a 2-week residency, which focuses on corporate strategy and policy. (Although students are not required to live on campus during this period, the workload and projects require extensive on-campus time.) By the end of the residency, each student will have completed a personal career assessment exercise, team-building exercises, two group projects, and a 3-day business simulation. During this time, using feedback from faculty, peers, and their own experience, students self-diagnose their baseline functional skills and target specific functional areas for remediation.

During the third week of the program, students complete an industry analysis in groups. The formal class sessions for that week are faculty-led remedial sessions in each of the functional areas (marketing, finance, accounting, economics, quantitative methods, organizational behavior, writing and speaking, and computer skills). Students can attend all or none of these sessions, as indicated by the results of their assessment. The residency is graded on a pass/fail basis.

Students take required modules for the remainder of the summer. The first 6-week module (the functional module) consists of integrated sessions in the following functional areas: organizational effectiveness, marketing, accounting, finance, history of business, microeconomics, data analysis and modeling, and ethics. Integration occurs when faculty members in one area either refer to or team teach with topics being covered by other faculty members.

The second half of the summer consists of thematic modules. Themes for the past 2 years include Total Quality Management (TQM), the Management of Change, Information Technology (IT), and the Management of Innovation.

These classes are also highly integrated. For example, using common case material, in an IT session, students will design an integrated information system for an organization. They will then discuss the implementation of this system in the organizational change class. The innovation class will study the example of an organization that uses technology to better serve its customers. The same material will be addressed by the TQM class (or the IT class) from that point of view. Macroeconomics is also studied during this time, providing a broader environmental context for change.

Students conclude their module work with an on-site 3-day consulting project. They work in groups with a local company on a corporate project. To complete the project adequately, students must use all the summer's academic work. It is fully integrative in that they must study the problem, devise solutions, and present an implementation plan for the solution they propose, just as they would have to do if they were an in-house task force examining the problem. Students have redesigned a manufacturing process, developed a plan for a corporate newsletter, and benchmarked investor relations strategies.

Students receive two grades for their summer work. The first and second residencies are evaluated on a pass/fail basis, dependent on the students' participation in class and on demonstration of learning as shown through completion of the industry analysis and the consulting project. The grades that students receive for the functional and thematic modules are a function of their work in all the courses. Instructors evaluate students based on traditional measures such as homework, class discussion, papers, and tests. Students' grades from each instructor are then pooled and averaged (with a weighted average based on number of sessions per course), and an overall grade for the functional and thematic modules is calculated. Grading individual course work enables faculty members both to measure students' ability in each of the functional areas and to determine which students may not be performing up to standards. The integrated exams discussed in this article are a way in which to determine each student's ability to think cross-functionally.

## Developing the Integrated Curriculum

Babson decided to develop an integrated curriculum after extensive study of both the needs of employers and the enrollment trends of business schools. Our findings during an extensive strategic planning process led us to believe that employers (organizations) of the future required employees who could work cross-functionally, in teams, across organizational boundaries. We set

out to develop a curriculum that would enable our students to think in an integrated way so that they could add value to their employers immediately.

Initially, it was difficult for faculty members to develop the integrated curriculum. Designing an integrated curriculum requires extensive team effort. Faculty members are accustomed to designing a specific course, usually independently, and teaching it. Some faculty members use cases as teaching vehicles, whereas others do not. Typically, we discuss course content only with faculty members from our own disciplines, if even then. Developing an integrated curriculum requires faculty members to spend extensive time with colleagues from other divisions and functional areas, explaining key concepts, talking about pedagogy and teaching styles, establishing the balance between functional expertise and integrated skills, and developing a module that seamlessly imparts key learnings from all the functional areas. Faculty members spent many hours together—over breakfasts, lunches, and dinners—learning about each other and about advances in disciplines other than our own.

At this stage in the development of the curriculum, the One Year MBA team was only considering integrating certain topics within the curriculum. In some ways, these would be “pilot tests” for future integrative efforts. Meeting frequently, learning our disciplines, and developing combined teaching materials all required a great investment of faculty time and energy. We found that only people seriously committed to the idea of developing a cross-functional curriculum could stay on the team. There were some faculty members who believed that integration was inappropriate because they feared dilution of their discipline and subject matter. Despite their commitment to the idea, they had difficulty considering new ways in which to deliver their material. All but two of the One Year MBA faculty members believed (rightly or not) that we could teach the basic functional skills necessary for our MBAs in a cross-functional manner. (The faculty members who were more wary of integration tended to keep their courses intact but *did* refer to other course material. The references themselves were a sign of at least minimal integration.) This integrated design meant that the course delivery would be changed and that the overall content would be enriched. Faculty members would spend some time individually in class and some time team teaching with colleagues; at other times, they would attend others’ classes to add summary comments. For example, as instructor of the organizational effectiveness and the managing change topics, I was responsible for 16 sessions. Of these, 5 were team taught. For two classes, colleagues sat in on my sessions. In addition, I spent time in four classes taught by colleagues. Other instructors had similar collaborative efforts.

For those faculty members who were on the One Year MBA team, several rewards were available. First, all of us were paid for summer work. Second, we were given some course release time (usually freed from one course) to develop the material. Finally, we were rewarded with the opportunity to work on something that would lead Babson's curriculum into the future. The One Year MBA program was viewed as our first step to changing our entire MBA (full- and part-time) curriculum. The excitement of working on the cutting edge of curriculum development and learning other disciplines was contagious. Several faculty members from the One Year MBA team went on to work to develop the radically new MBA curriculum launched in September 1993. Further, because Babson has a strong commitment to defining research as intellectual vitality and values applied research and development of teaching-oriented materials as intellectual activities, collaborative research—and the development of articles such as this one—served to reward faculty members who chose to develop this new curriculum.

The development process began for the functional modules with each faculty member assigned to teach in the program taking responsibility for designing individual sessions. Functional assignments and time allotments were made by the dean and the (standing) MBA curriculum committee. Their deliberations ensured that concepts central to every functional area and essential for student skill building were included. Program faculty members then held a series of meetings so that each of us understood what we were doing in our functional sessions and the ways in which material could be related across functions.

From the November to April before the program began, faculty members worked as a team to build a curriculum in which topics covered in one area were referred to or addressed in another area. Faculty members were responsible for developing common areas for instruction and for using common materials wherever possible. For example, if the accounting faculty member was talking about cost-volume-profit relationships, then the marketing professor could address this topic from a marketing perspective. The same case material could be used to illustrate topics in two (or more) functional areas. For example, in one session, we examined the new product development process from the point of view of marketing and organizational behavior. The organizational effectiveness class addressed organizational design topics, and the marketing class examined marketing strategy. Use of common case material in a team-taught session enabled students to look at the ways in which marketing strategy and organizational design affect each other. In another example, the statistics, finance, and accounting faculty members organized their material so that topics built on each other. Students use

statistics to perform the quantitative analyses necessary to complete the financial analyses for accounting and finance.

The team had to be very careful to balance the workload across the functional areas so that one discipline did not require significantly more out-of-class work than did others. Assignments reflected the expectation that students be prepared for each session regardless of the number of sessions taught by that instructor. We hoped that this assignment would encourage students to be as prepared for a business history session as they would be for a finance session. Because the program was intensive and integrated across the summer, it was important that students not work hard for one functional area over another because if they fell behind in one area of an integrated curriculum, then they would be in trouble in all areas. Individual module faculty members evaluated student progress through various methods such as class participation, homework, papers, and presentations in individual and group projects. These grades were then pooled for individual student evaluation.

The thematic modules were designed similarly. Different faculty members taught in the thematic modules, which were designed to focus on topics that we viewed as important trends in business and organizations of the future. The course work in the modules were, by their nature, much more integrated than those in the functional modules. Faculty members encouraged integrated thinking the same way that they had in the functional modules but were also doing more joint teaching of material and were much clearer about developing and discussing the cross-functional linkages as they appeared. For example, some IT sessions had an implementation component to the discussion. In those situations, the instructor would use material from the managing change course to emphasize implementation issues. More often, the instructor for the managing change course would be present to participate in that part of the class. The same was true for the other courses. Each instructor worked hard to find areas of commonality across the themes. This extended integration was a function of available material and the smaller group of teaching faculty. Students were evaluated on class participation, homework, papers, presentations, and tests.

### **Teaching in an Integrated Curriculum: Functional Module**

After the curriculum was designed, our work was far from complete. Teaching in an integrated curriculum requires many new behaviors from faculty members. They must collaborate, discuss, and in some cases relearn



material perhaps long forgotten. Module faculty members continued to meet regularly to communicate classroom activities and keep in touch with common material and topics. We had to be aware of what our colleagues covered in their individual sessions and emphasize the integrated nature of those concepts during our class time. We also used our discussion time to monitor classroom process, student morale, and program climate. The exhilarating—and exhausting—experience of teaching in an integrated program could be an entire article in itself. However, each team member was able to teach cross-functionally through common cases, lectures, and/or discussions. Often, faculty members would have topical debates in which those from one discipline would debate pertinent topics. Students noticed and appreciated all integrative techniques we used. They continually commented that the material became more meaningful when taught from a variety of views. Few had ever experienced such interconnections in their undergraduate studies, yet most recognized that cross-functional thinking was required on the job.

The cross-functional classes emphasize the integrated nature of the manager's job and epitomize the kind of work across disciplines desired by Porter and McKibben (1988). Students receive a grade for their work in the module, not for work in particular functional "streams." The One Year MBA team decided that because we were stressing students' thinking of managerial practice in an integrated way, we should develop an end-of-module exercise/exam that would evaluate students' ability to think both functionally and cross-functionally.

#### EXAM PROCEDURES

The exam needed to test students' understanding of accounting, finance, data analysis and modeling, history, ethics, economics, marketing, and organizational effectiveness. We also hoped that the exam would evaluate students' writing and speaking skills as well as their ability to work in groups. We needed to pick an appropriate vehicle for the exam and a process by which we would evaluate students on these dimensions.

After an extensive search of material, we decided to use a case, "Transformation at Ford" (Schlesinger & Pelofsky, 1990), along with a companion piece, "The U.S. Auto Industry: Scenarios and Choices" (Salter & Kokuiyo, 1989). We chose this material for a number of reasons. First, it was relatively new and therefore topical. Second, the case content had sufficient information and data so that every functional stream could design test material from the information in the case. Finally, the subject built on other material the students had been assigned, most notably Halberstam's (1986) *The Reckoning*, and other work with a database on the auto industry in the data analysis



and economics streams. Each faculty member developed two questions to use for evaluation (see Appendix B for exam format).

The exam procedure was complicated to determine given our objectives and the short time frame we had in which to give the exam. Individually, 4-hour exams for seven functional areas would require 28 total hours of exam time. We had to accomplish this same goal in a single day.

The faculty team assigned students to work in groups of three to four members. We believed that equal student participation was more likely in groups of three to four. In addition, the students had to, as a group, prepare a 15-minute presentation covering the situation at Ford and outlining their suggestions for the future (see Appendix B). During a question-and-answer session that followed, individual faculty members directed questions to determine individual students' understanding of the functional material. We allocated an hour for each group's presentation and question-and-answer session. Each faculty member evaluated the group's responses to his or her questions for a functional grade. The entire faculty group evaluated the group presentation for an integrative skills grade. The functional grade served as the final exam grade for the student in his or her functional area; the integrative skills grade would be a percentage of the overall module grade. Students would also grade their peers (Cohen, Fink, Gadon, & Willets, 1992) as a way in which to ensure that no one group member either dominated or failed to participate in the process (see Appendix C for peer evaluation instructions). Peer review was also intended to stimulate the students' organizational behavior backgrounds to create a productive dialogue on group expectations for their work on the exam and to provide feedback regarding individual behavior during the group experience.

We divided the class into groups and distributed exam questions and case material on a Friday afternoon. Presentations began at 8:30 a.m. the following Tuesday. Students therefore had 3 days to prepare their responses.

### STUDENT PERFORMANCE

The faculty team was pleased with student performance. Compared to the performance of the first One Year MBA class, which did *not* have an integrated exam, we believed that the students addressed complicated issues in a comprehensive and succinct manner. Most groups completed excellent analyses and demonstrated their functional expertise as well as an ability to integrate complicated course material. Students with weaknesses in particular areas addressed their deficiencies and were able to analyze the material in those areas with marked improvement.

### STUDENT REACTION

Overall, student reaction to the exam was quite positive. Students found the exam to be quite challenging (as a test of functional expertise and as a test on group work) and comprehensive. Sample student comments include the following:

- “The faculty worked hard to integrate the case into teaching for the entire term, a good indication of what is covered in the graduate school.”
- “The exam was a good integration of a realistic case.”
- “It was very thought provoking and challenging.”
- “The written part gave me the opportunity to demonstrate all that I had learned.”
- “Complete the financial analysis before the integration process.”
- “As a group experience, we learned a lot from each other and from ourselves.”
- “A valuable experience working for a common cause under time pressure; an excellent learning experience.”
- “We learned about different work habits and were challenged to get as much out of each member as we could.”

Before the experience, students were concerned that group members with expertise in one area would complete the question for that area; in only one instance was that the case. Interestingly, faculty members shared the same concern. The organizational behavior faculty member was quick to point out that attention to expectations about balancing workloads across the group would have addressed this issue. On the whole, students felt that the material was an excellent test of both their functional expertise and their ability to integrate complicated material. To some, it was also a test of their abilities to be members of teams that shared responsibilities for outcomes.

### PROBLEMS

Although the faculty team found the exam to be a valid way in which to test for functional and integrative expertise, we felt that the exam had some drawbacks, most notably in individual assessment of knowledge. We hoped that asking individual questions of students would enable us to evaluate their individual knowledge of each area.

Although faculty panel questions did enable us to determine the functional skills of each student, we did not have sufficient time to question each student individually on his or her understanding of the material that the group had performed. One or two students probably slipped through the cracks with less functional expertise than their colleagues. Hopefully, the deficient students would be targeted by the individual class assignments. Each was probably minimally competent; we were unable to identify students who were the least competent for further remediation. Although this probably is true of most

graded work done in groups, the faculty team was not comfortable with this result. Achieving a balance between individual accomplishment and demonstrated understanding of material is difficult in an integrated curriculum; we hoped that by balancing this exercise with individual work, faculty members could adequately assess student mastery. Informal feedback from faculty members who had these students in second-year electives indicated subject mastery.

The peer evaluation, designed so that each student would contribute and as another test of individual work, was somewhat successful (see Appendix C). During the peer evaluation, three of eight groups graded their members differently, but the grading differed by only a few points. Two of eight groups had a 10-point spread between individuals. Although faculty members cannot be certain as to whether or not these are adequate assessments of individual students' work in groups, we do believe that because of their different skills as demonstrated in class, not every student was able to contribute equally to the overall effort. We concluded that the two groups that had grade spreads of 5 to 10 points probably adequately reflected the different work performed by student group members. After all, these were the criteria given in the peer evaluation form.

Three of eight groups equally divided their grades among their peers. Although optimistically this could be an indication that every member had participated equally, the faculty members felt that it was more of an exercise in minimizing confrontation given that at least one member of each of those groups came in to discuss the inequities of group grading, that is, giving good grades to people who may not have deserved them (at least in their minds).

Perhaps the peer evaluation component could have been more effective if we had made peer evaluation a major part of any group work the students did over the course of the module. They simply were not accustomed to setting expectations and giving (and receiving) feedback on work of this magnitude. The faculty team plans on instituting this change during the upcoming program.

## Teaching in an Integrated Curriculum: Thematic Modules

Thematic module faculty members worked to integrate their material similarly to how the functional faculty members integrated theirs. Evaluations for individual classes were determined by the individual faculty members and generally were based on class participation, homework, quizzes, projects, and the like. When it came time for the final examination, we

expanded on the experience of the functional module exam. We still wanted to test the integrated nature of the students' learning, but we realized that we needed to have a better way in which to evaluate individual student work.

We had similar time constraints. Students had a limited time to prepare the exam. They were starting their company projects as soon as the module ended. Faculty time was also greatly limited. We could not schedule a full day for presentations as we had been able to do before.

We decided to use the "Concordia Casting Company" case (McFarlan, 1992) as the vehicle. The TQM faculty member distributed supplementary material he had developed about Concordia's TQM program. Each faculty member developed two questions on the case designed to measure student understanding of the material covered in the submodule and to evaluate student understanding of the integrative nature of the managerial problem faced by the company in the case (see Appendix D for exam questions). Each student was to prepare individual answers to these questions in essay form. To ensure unbiased grading, students were given numbers to use on their papers instead of names. Each faculty member graded each student's work, wrote comments, and included grading criteria for his or her section. He or she then passed the set of exams to the next faculty member for evaluation of the material.

#### STUDENT AND FACULTY REACTIONS

Student reactions to this exam were also positive. Sample student comments include the following:

- "individually tested us on integrated topics";
- "good test of applications of themes";
- "better attention to individual work"; and
- "good comprehensive case; touched on all themes."

Faculty reaction was also quite positive; we were able to assess individual student expertise and got a good idea of their abilities to think in holistic terms. We eliminated the group issues prevalent in the functional exam. We believe that we could have better evaluated the integrated work if we had been able to meet to discuss each student's written work or if we had asked individual students for responses to questions by a panel of faculty members. In addition, by requiring individual responses in an exam, we were not able to evaluate students' ability to work in groups. However, further information on students' group skills came from other class exercises and from the group consulting project.

## PROBLEMS

The major problem in this exam format was that faculty members did not meet to discuss the exam as an integrative experience. It seems ironic, and in retrospect distressing, that after all our work integrating the curriculum we did not have, or did not take, the time to discuss the process. That will be corrected in the future. In addition, perhaps reading other faculty members' comments may have biased our perceptions of student work. If a colleague wrote "excellent" in a margin comment, it possibly could have skewed our reading of the material. There is also a tremendous cost in development time for this type of evaluation; although the process becomes easier with each iteration, a great deal of time still must be spent on choosing appropriate material.

## Next Steps

We anticipate further changes in the One Year MBA curriculum, some of which will directly affect the evaluation mechanisms. Students will be introduced to group process early in the program. We will encourage groups to give each member feedback every time they complete a group project, whether it is for a grade or not. When the group exercise is graded, a strong component of the group grades will come from peer evaluation. Students will be introduced to giving and receiving feedback from peers at the beginning of the program and, hopefully, will come to see it as a valuable learning experience. Then, they will be given the opportunity to use peer evaluation to its full capacity.

For the Functional module, we will require individual written responses to the functional questions and a group presentation for the integrated part of the final exam. This will enable each faculty member to determine the range of student competencies in his or her area. We will mandate a group project for the integrated part of the final exam for the thematic modules in addition to the individual written work required.

## Implications for Teachers of Organizational Behavior

Designing and teaching in an integrated program requires a new set of requirements for organizational behavior faculty members. First, they must become familiar with the material of other faculty members so that they can refer to it during their own sessions. For example, when the finance professor

is discussing the financial implications of a leveraged buy-out (LBO), the organizational behavior faculty member teaching about the dynamics of change driven by an LBO must know the financial implications of LBOs.

We discovered several ways in which faculty members could learn about each other's disciplines. One is by sitting in on each other's classes to gain specific insights and references. This method is *very* time consuming. Another is through sharing lecture notes and presentation slides. This method usually does not reveal the richness of the topic to a faculty member unfamiliar with the discipline. The method we found most appropriate is faculty meetings in which topics to be covered are presented to the group, common links are identified by the lead faculty member, and the lead faculty member and those who perceive links meet one-on-one to review concepts in the material. This method, although time consuming in that faculty members were in at least one meeting a week, was not as time consuming as sitting in on each other's sessions, and it enabled faculty members without backgrounds in business to become familiar with a variety of topics. We found that those discussions inevitably led to ideas for future integration.

Second, we need to make decisions about the depth and breadth of content in an integrated curriculum. Teaching in my own nonintegrated class, I am accustomed to spending eight 1½-hour class sessions on managing work groups and group process. In an integrated program, however, I have only five sessions to cover this material. Although areas traditionally taught in an organizational behavior class (such as group process, leadership, interpersonal behavior, individual motivation, and even organizational planning and change) can be addressed cross-functionally, we as organizational behavior faculty members, with expertise in the area, have to ensure that our colleagues use the material correctly if they use it at all. At Babson, we have found many ways to use organizational behavior content in other areas. For example, students work in groups to develop a long-term financing strategy or to analyze a competitive marketing position and use their group process skills at the same time. Students (and faculty) gain an appreciation for organizational behavior concepts when they are actually practicing them in "real time." This leads to reduced student resistance to the value of organizational behavior despite fewer formal class sessions.

Finally, faculty evaluation and reward itself has had to change. Just as organizations have to develop alternative evaluation and performance review mechanisms for members of cross-functional and/or self-managing teams, so does a faculty. Even though Babson has a long tradition of valuing teaching as the threshold for tenure and emphasizes collaboration in teaching and

research, we are developing and trying new ways in which to evaluate faculty using peer evaluations, individual student surveys, and other mechanisms.

Faculty rewards are being reassessed as well. Because faculty members spend more time preparing classes, meeting with other faculty members, and spending time with students in an integrated curriculum, institutions must develop ways in which to compensate faculty members for these efforts. However, traditional rewards such as release time and pay are costly and remove the very resources that the college sorely needs to continue teaching in an integrated way. The excitement of teaching in a new way, and with new colleagues, can be very challenging and invigorating, but excitement often is not sufficient for the efforts involved. As a result, we are examining new ways of rewarding faculty members through research support, redefining research as intellectual vitality, and granting release time, and we are still developing appropriate faculty rewards for the integrated curriculum.

## Conclusion

The One Year MBA faculty team hopes that our experience can be put to good use elsewhere. In many ways, our work as a faculty team modeled the behavior we want our student groups to develop. In our group meetings, we spent a great deal of time discussing our disciplines and our objectives for our sessions. We got to know and trust each other as colleagues more than had been possible previously in a functionally based program. We set expectations for each other and were able to give and receive feedback on our work as group members. During the design process, each faculty member had to be willing to give up some control over the content and delivery of individual material; when one faculty member did not, it was very apparent to the students. We were also willing and available to visit each other's classes, to team teach, and to meet regularly to monitor the ways in which we actually integrate material.

As different as this may be for faculty in most institutions, we can see from the student and faculty feedback that the efforts to integrate the curriculum are well rewarded. Not only do students learn individual functional areas well, but they are also able to integrate material in ways that will be required of them as future managers. Faculty members who have these students in second-year courses, in corporate strategy in particular, praise their abilities to think outside the functional boxes. In addition, faculty members can learn a great deal from each other, something that will only enhance our abilities to teach effectively in the future.



## Appendix A

### Outline of the One Year MBA Program

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May through August	
Weeks 1 through 3	First residency Strategic overview, fundamental skill review
Weeks 4 through 8	Functional modules Including: Managing organizational effectiveness, accounting/finance, ethics and values, data analysis and modeling, historical perspectives, microeconomics, and marketing
Week 9	Exam and break
Weeks 10 through 14	Thematic modules Including: Managing change, managing innovation, information technology, total quality management, and macroeconomics
Week 15	Second residency Company consulting project and presentation
September through May	One Year MBA students join Babson full-time MBA program in second year

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## Appendix B

### Functional Module Final Examination

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This is the final examination packet for the functional modules. It contains an outline of the procedure, questions for the presentations, and questions for the written analysis.

#### **Presentations**

Use these responses to prepare your group's presentations. Presentations should address the following questions:

Assume the faculty group is the Ford board of directors in January 1990.

- a. Assess the actions taken by Ford thus far.
- b. Recommend actions for Ford to take in the future.

All overheads to be used in the presentation are due on July 14. Only materials in at that time can be used.

Presentations will be as follows:

- 15-minute group presentation (each member will have 5 minutes to present);
- 15-minute response to faculty questions, individually and/or by group; and
- 15-minute peer evaluation by group, concurrent to 15-minute faculty discussion time.

## Written Questions

Responses to these questions are due at 8:30 a.m. July 13 so that faculty members can review them before the presentations. Please limit your responses to two pages per set of questions. Responses should be typewritten and separate for each instructor.

## Data Analysis and Modeling

1. Using the data in Exhibit S-8 (not shown here), generate separate simple regression models that relate net income to sales for each of the Big Three. Comment briefly on the apparent relationships between sales and net income and on how the relationships vary across companies.

2. Construct a multiple regression model to analyze and predict sales at Ford. One variable should be Ford's sales lagged over 1 year. The other variable may be from data from the case or from any secondary source. Comment briefly on what the model implies about the determining factors of sales for Ford.

## Organizational Effectiveness

There can be no doubt that Ford changed between 1980 and 1989. There is some debate about what caused the change. Three views are as follows:

- an environment that allowed the “stovepipes” to be knocked down and involved employees in the change;
- the presence of a crisis, causing everyone to change to avoid a disaster; and
- there was no real transformation (it just developed a new product and took advantage of a turn in the market).

What do you think precipitated the transformation at Ford? If you believe that a transformation has not occurred, then why not? What changes in managerial behavior influenced the process? What challenges do Ford and Poling face in the future?

## History

How do you account for the apparent benefits of the employee involvement decision-making process as described in the case? Is it simply that people work better and harder when they feel involved? Or does it go deeper than that and have something to do with the essential nature of organizations and the way they “learn”?

## Accounting

Using the financial statement data provided, plus additional information regarding GM's performance over this same period, trace the effect of Ford's strategy on key

*(continued)*

## Appendix B Continued

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ratios and compare this to the same ratios for GM. Was there any "window dressing" going on during this period?

### Marketing

1. During the marketing module, we applied the value chain to understanding competitive advantage. Use the value chain concept to explain Ford's performance from 1980 to 1989.

2. Use the value chain to explain how certain activities undertaken by Ford affected the value delivered to the target market.

3. Based on the facts and data in the case, who is Ford's major competitive threat in the short term and in the long term (1992 through 2000)?

### Finance

1. Prepare pro forma financial statements for years 1989, 1990, and 1992.

2. Using beginning year 1989 as your time of decision, estimate Ford's weighted average cost of capital to be used for future projects during 1989-1991.

3. What is the *value* of Ford's stock at the beginning of 1989? Compare this value to the trading price at the same time.

Show all work and assumptions. Do not use hindsight.

### Microeconomic Reasoning

In examining Ford's dramatic turnaround, we observe that it coincided with very special economic conditions. For instance:

- between 1985 and 1987, the U.S. dollar depreciated from 1 U.S. = yen 265 to 1 U.S. = yen 130;
- the introduction of the voluntary export restraints imposed by the Japanese government on its automobile manufacturers in response to U.S. government pressure in the early 1980s;
- the steady decrease in the price of oil after the second oil crisis; and
- the substantial reduction in interest rates during the decade of the 1980s.

1. Explain carefully how these conditions affected the demand for Ford automobiles. How much of the turnaround can be explained by variables such as the ones mentioned here?

2. If you were forecasting market conditions in the early 1980s:

- a. What would be your thoughts about excess capacity in the automobile industry?

- b. How would you expect the Japanese manufacturers to react to the U.S. government's pressure on the Japanese government to impose voluntary export restraints on its auto manufacturers?
- c. What would this imply about their production plans?
- d. What would this suggest about the type of automobiles that the Japanese carmakers would export to the United States in the future?

## Ethics and Values

The changing environment of Ford in the 1980s has been characterized as "truly amazing" by industry analysts. Many experts believe that Ford's success can be attributed to two major factors: its commitment to quality manufacturing and its efforts to reorient the organizational culture.

1. Using an agency theory perspective, explain how the transformation at Ford may have influenced the ethical culture of the company.

2. Please explain how an ethical culture defined by idealism, relativism, and positivism could influence Ford's efforts to improve the quality of its automobiles.

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## Appendix C

### Peer Evaluation Procedure

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Each faculty member will give a grade for each group's written work and presentation. In most instances, the faculty's group grade will equal the individual grade. The individual faculty member will use this grade as a portion of his or her module grade for each student. You will receive one grade for the functional module. This grade is based on individual faculty assessments of student work for their sessions. These individual grades will be proportionally averaged to determine total grades for the module.

To determine the group grade, the faculty will give each group one grade, based on a group's writing, its presentations, and its responses to questions. To ensure standards of group participation, you are to participate in a peer evaluation process. *It is important for you to clarify expectations for everyone's contribution before you begin work.* The peer evaluation process is as follows:

- After the presentations, the group will meet to decide the distribution of grades in terms of the contribution of each individual member.
- Contribution must be indicated by percentage and must *average* out to 100% for the group. The percentage given to any participating individual can range anywhere from 80% to 120%.
- The percentage of zero must be given to group members who do not participate, for any reason, in the preparation of responses to the questions.
- If a zero percentage is given, then the average of 100% for the group will be determined by excluding the absent member.

*(continued)*

### Appendix C Continued

- Group grades will be returned together with the individual grades. They will be determined by multiplying the group grade times the contribution percentage assigned to the individual.

For example:

	Individual Contribution (percentage)	Group Grade (percentage)	Individual Grade (percentage)
Bruce Springsteen	95	90	85
Eric Clapton	100	90	90
Michael Jordan	120	90	108
Magic Johnson	80	90	72
Larry Bird	105	90	95
Total	500		

### Appendix D Thematic Module Exam

This exam is an individual effort—*no group work*. Your paper should be eight pages maximum, double spaced, plus any exhibits.

1. Assess the situation at Concordia Casting Company. What factors have contributed to the situation?
2. What *specific* actions should McMillan take with respect to CAPS (the company's systems development program)? Explain why.
3. What other *specific* actions (if any) would you recommend he take? Explain why.
4. Concordia Casting has not adopted a TQM approach. In fact, a TQM approach would have resulted in an approach vastly different from the CAPS conversion project and the staffing of corporate information systems.
  - a. On which dimensions would you measure the quality of the CAPS project? What are some of the costs that would be incurred if CAPS was of poor quality?
  - b. Would you recommend McMillan institute TQM? If so, how should he start to implement a change? Explain specifically how he would handle the huge backlog and choose to postpone starting on the TQM path. Describe the conditions that would have to exist before starting, how you would make these conditions come about, and the time frame you project.

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