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TEAM TEACHING FOR HIGHER LEVEL LEARNING: A FRAMEWORK OF PROFESSIONAL COLLABORATION

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Management educators face a challenging situation. Merely helping students become technically qualified to recall, recite, and apply predefined classroom routines to predefined classroom problems is not adequate preparation for the business environment. Students who have been trained to expect to find the right answer and who rely on the teacher to confirm rightness do not make good managers when they leave the classroom (Behrman & Levin, 1984). As environments, technologies, and ethical standards become less stable and more complex, management education must help students develop flexibility, analytic awareness, and a self-critical value system. As educators, we must help students learn how to learn (Argyris & Schon, 1978; Harrigan, 1990). This implies a shift in the common role of teachers from

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providers of information to the more facilitating role suggested by Socrates: midwife to students pregnant with thought (Belenky, Clinchy, Goldberger, & Tarule, 1986; Cornford, 1957).

In response to these challenges, management educators are increasingly exploring multiple ways to craft more effective learning experiences. In this quest, team teaching is an option that is gaining popularity in many schools. Team teaching, ranging from the simple format of multiple teachers in a single course to more complex learning communities and linked courses, is being attempted in many institutions (Levine & Tompkins, 1996). In all these forms, the common thread is increased collaboration among professors and stronger linkages across topics. In this article, we present a framework (developed from 6 years of classroom experience) to address professors' potential roles in team teaching. We discuss ways to extend the effectiveness of teaching teams, describe the lesson planning process, develop three basic team teaching motifs, and discuss experiences applying the framework. Importantly, we apply learning theory to tie the various team teaching motifs to desired learning outcomes. Team teaching is not an end in itself, but rather a way to accomplish explicit learning outcomes.[1]

Though the most obvious potential of team teaching is broadening topic expertise and perhaps reducing individual teacher's classroom time, we argue that team teaching offers other significant teaching/learning possibilities. Simply, two or more teachers working as a team can model for the learners a wide variety of professional interactions including disagreement, exploration, concept evaluation, conflict, resolution, and collaboration. Effective coordination on such complex professional exchanges (in the very public setting of the classroom) is a challenge for professors. Using this framework, which focuses on learning outcomes more than topics, and planning the lesson around explicitly designed roles greatly facilitates effective collaboration. Indeed, we have found this approach to team teaching grows into a rich, professionally rewarding (even fun!) experience for the professors as they examine their well-trod topics in new ways.

Teaching/Learning Theory Foundations

Bloom's taxonomy (Bloom, Hastings, & Madous, 1971) is a fruitful starting point for discussing the learning objectives of management education. Bloom maintains that learning occurs in a hierarchy of increasing cognitive complexity. The most simple form of learning calls for the relatively passive student to receive knowledge and simply accept information given by the teacher. As learning becomes more complex, cognitive objectives move

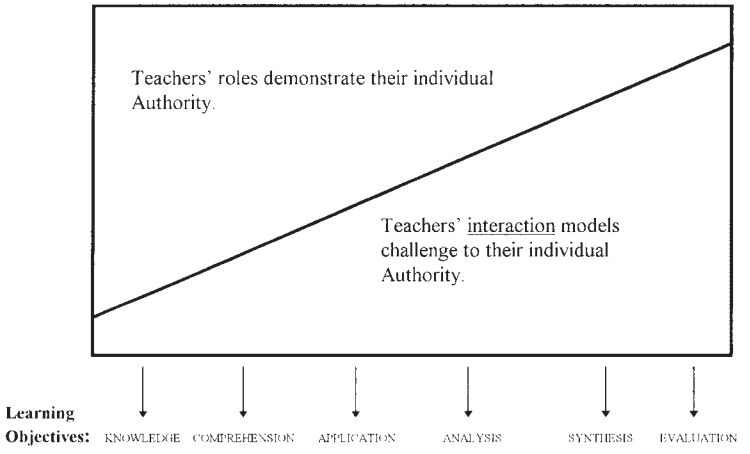


Figure 1: Learning Objectives and Teachers' Roles
SOURCE: Adapted from Bloom, Hastings, and Madous (1971) and Perry (1968).

through comprehension, application, analysis, synthesis, and ultimately, evaluation. As this transition occurs, the student must become increasingly active in the learning process, shifting from merely receiving information to evaluating and organizing knowledge into an overall view of the world. At some point we expect students to piece together their own view of situations, articulate those views, and evaluate their own actions and decisions. Thus, we should also expect them to learn to disagree with the teacher. For most students and many teachers, this is a monumental step in the learning relationship. It requires students to learn to challenge what Perry (1968) has labeled Authority, or the teacher's assumed total knowledge of all the right answers.[2] As the learning experience becomes more complex and the learner's knowledge more sophisticated, roles must change. Students must learn how to formulate their own questions and answers and teachers must nurture their articulation of these questions and answers. As Belenky and her associates (1986) suggest, teachers must help students find and use their own voice.

We have combined these lessons from Bloom et al. (1971) and Perry (1968) in Figure 1 to illustrate how collaborative teaching roles accomplish a variety of learning outcomes ranging from low to high in Bloom's taxonomy. In our experience, students do not spontaneously develop and exercise their own voice in the classroom. Also, teachers often do not spontaneously create opportunities for their Authority to be challenged in the classroom. Figure 1

serves to clarify the variety of outcomes possible and to assist in designing appropriate team teaching roles.

Team Teaching

Team teaching is not new. The technique was introduced in the mid-1950s and has enjoyed a great deal of attention over the years (Shaplin & Olds, 1964). Though team teaching as a specific technique has waxed and waned in popularity several times since the early years, the general thrust in education toward more collaborative forms seems reasonably well established in business schools. This, no doubt, reflects both trends in learning theory and trends in the business world (Katzenbach & Smith, 1993). The collaborative basis for team teaching is not simply a variety of educational technique; it also reflects the professional environment our students will face.

Most simply, team teaching consists of two or more teachers sharing, to some degree, responsibility for a group of students. Typically, team members bring different specialties to the class and simply contribute their particular expertise (Shaplin & Olds, 1964). This common form of team teaching remains inherently focused on the lower end of Bloom et al.'s (1971) taxonomy (see the left side of Figure 1). One teacher is clearly more experienced and knowledgeable in his or her subject, and it is common for team members to teach their individual sections of the course sequentially with clearly marked boundaries between their subjects. The goals, often not explicitly stated, are to broaden topic coverage, share the workload, and perhaps reduce class time for the individual members. The students are exposed to multiple experts.

Such team teaching allows for greater width of subject coverage, but misses an opportunity for greater depth. To craft a learning experience with greater potential for higher learning objectives, roles beyond "teacher as topic expert" are necessary. A more integrated and interactive set of roles for team members can help learners learn to challenge teacher-as-Authority. Teams can demonstrate professional disagreement and conflicting viewpoints. They can address intractable methodological conflicts. They can explore unanswerable questions. Importantly, they can model how sophisticated learners learn. For many teachers, such a public display of their own learning processes, professional disagreement, and challenge to their expertise can be a very uncomfortable possibility. Consequently, in team teaching, preclass planning becomes even more important than singly taught courses. With complex, interactive teaching roles, the possibility for conflict is obvious. In fact, in some lessons the possibility for conflict is the whole point.

(How, for example, can we demonstrate conflict resolution if we do not demonstrate conflict?) Preclass planning of the team taught lesson must address the basic learning objectives and set some clear ground rules.

PRECLASS TEAM PLANNING

Collaboration and teamwork must begin in the planning process. To effectively and efficiently coordinate roles and expectations, we have defined three areas requiring explicit preclass coordination:

- lesson objectives,
- turn-taking, and
- resolution.

Lesson objectives. Overall course objectives such as knowledge, comprehension, application, analysis, synthesis, and evaluation (see Figure 1) must be specified. Objectives to develop cognitive growth over the entire course require that each lesson fit an overall course flow (Bloom et al., 1971). Throughout a given course, there is an interplay of lower to higher level lesson objectives that must be designed to accomplish the overall course objectives. The transition from lower to higher level learning objectives need not, of course, be a simple linear progression over time. The overall course objectives simply require each lesson to fit into some productive mosaic and flow. In the framework developed here, some lessons may focus on lower level learning objectives whereas others focus on higher level learning. It is important for team members to begin with a clear and shared understanding of their objectives for the lesson. The framework in Figure 1 offers a relatively precise language for team members to discuss and articulate learning objectives in relationship to their roles. Once the desired learning objectives are decided, the basic roles the team members might play and how those roles interact become more clear.

defined where?

Turn-taking. Once the lesson objectives and teaching roles are specified, the team must coordinate turn-taking protocols. The very practical questions of who speaks, when, and to what end must be thought out before class. There are many reasons to clarify this critical aspect of the lesson. First, of course, it is important for team members to be comfortable with and trusting of each other during class interchanges. Being secure in one's role and correctly anticipating others' responses are comforting in any social exchange, no less so in the social exchange of team teaching. Second, from a learning standpoint, the equality of the multiple teachers-as-Authority must be clear.

Creating the image that one is in charge or that one's subject matter is superior reduces the status of the other. Third, it is essential that the lesson flows smoothly within the time limits of the session. In more complex, interactive motifs, attractive turn-taking opportunities often develop spontaneously and turn-taking signals become more subtle. Thus, to effectively accomplish the learning objectives, all team members must be working from the same basic protocol toward the same basic objective.

Resolution. Finally, the team must agree on the form of lesson resolution. It is typical to close classroom presentations with a conclusion. To conclude means to bring to an end or to formulate an answer. In many learning situations in management education, such finality is inappropriate. There are times when the debate is not ended, where the issues are not closed, and where the correct answer is not clear. Thus, when dealing with management, the nuance implied by resolution is often more productive than conclusion.

There are two important implications of resolution as a metaphor to guide the final minutes of the class. First, there is a visual connotation. For example, one resolves astronomical bodies using telescopes to discern distinctions previously unobservable. Many star clusters look like a smudge of light to the naked eye. However, with a telescope, individual stars can be seen (Mallas & Kreimer, 1978). Second, there is a listening connotation. A musical piece resolves as it progresses from dissonance toward consonance, from tension toward balance. For example, in the first prelude to Bach's "Well-Tempered Clavier," the last few bars move through a series of chords building tension that ultimately resolves in the balanced C-major finale (Hofstader, 1979). Following the metaphor, team members must help their students see distinctions and hear transitions. In simple information-transfer education, the closure implied by lesson conclusion may suffice. However, as the learning experience moves to higher levels on the taxonomy, it is important to end with openness—resolution, not conclusion.

Ensuring adequate lesson resolution is an absolutely critical part of preclass planning. How the team ends the learning experience is key to the integrity of the lesson. If the team has attempted to clarify subtle distinctions, it is essential that the learners not only see those distinctions but also understand the implications. If the team spent the lesson developing dissonance in some form, how they model resolution is the central point.

Interestingly, team members often become so engrossed in their interactions that they lose track of the pace of the lesson. Class time slips away and the resolution must be rushed as students gather their belongings to leave the room. A poorly accomplished lesson resolution may leave the students confused and frustrated with little understanding of the purpose of the exercise.

Such a lesson does not accomplish the objectives, nor does it foster enhanced trust between the team members.

THREE TEAM TEACHING MOTIFS

As we gained experience using this framework to coordinate lessons, three basic teaching motifs emerged: sequential, distinctions, and dialectic. Each motif is discussed in some detail below. It is important to stress that, within each motif, there is a great deal of flexibility to emphasize or de-emphasize different teacher roles and interactions. Each motif is a continuum over which the teams may roam to accomplish different learning objectives, explore various relationships, and model different aspects of sophisticated professional interchange.

The sequential motif. The most straightforward motif is a simple, sequential lecture model where one teacher at a time addresses the class. The objective here is to present information efficiently and effectively. In Bloom et al.'s (1971) cognitive terms, the learning objectives are knowledge and comprehension. Turn-taking is relatively simple. The team members agree to lecture about specific topics for a specified period of time. Transition occurs at the end of each mini lecture. Lesson resolution is also quite simple. One team member summarizes the joint lecture and reinforces the important pieces of information. From a pedagogical point of view, this form of team teaching is similar to single-teacher methods in many ways. The primary differences are the potential for broader expertise and more integrated blending of topics.

This motif provides little basis for challenging Authority. Each team member is portrayed as the expert for a specific topic and, within that given topic, the teacher is relatively beyond challenge. However, this does not mean that one teacher is active while the other is passive, nor does it mean that only one teacher needs to be present in the classroom. The passive teacher can accomplish a variety of active team tasks, such as writing on the blackboard for the lecturer, roaming the classroom during the lecture to discover areas of confusion, or listening to whispered conversations in the outlying regions of the room to discover questions that students may be too shy to ask. These contributions all serve to enhance student interest, smooth the flow of the lecture, and demonstrate the importance of active participation in the learning process. A less obvious but very important benefit of this motif is that it provides a straightforward, low-threat arena for team development. As noted earlier, team teaching requires trust among the members. Because a lecture format enhances teachers' control of topic flow and timing, it provides opportunities to "script" low-threat exchanges that help team members become

accustomed to interacting with each other during class. Finally, with all members present and sharing in the total learning experience, the team clearly demonstrates the importance of all topics, each member's expertise, and overall team cohesion. By listening to other member's lectures, teachers can modify their own future lectures to build interesting synergies. Indeed, we have found this learning experience exceptionally fruitful as we (academic specialists) develop a clearer picture of how our focused expertise relates to the overall whole of management and business processes.

The distinctions motif. The objective here is to demonstrate application of theories and clarify distinctions. In Bloom et al.'s (1971) cognitive terms, the learning objectives are application and analysis. The specific roles for teachers range widely. One teacher might, for example, lecture on theories while the other champions application. In a more complex interchange, one teacher might lecture on theories while the other teases out nuance, amplifies distinctions, and points out inconsistencies (that is, demonstrates analysis of the theories). The specific roles that teachers assume can be cooperative (e.g., "This is the theory and this is how it is applied") or confrontational (e.g., "Your ivory tower theories are all very nice, but what do I do differently now that I know them?"). The flexibility of this motif to dissolve Authority is obvious. Teacher-as-Authority is challenged in light of the value of applicability and in light of subtle details of the theory. Students can observe a sophisticated scholar examining theories being presented by Authority. They see critical examination and informed challenge. Most important, they see that this activity is acceptable and indeed welcomed. The team does not ignore flaws in the theory, limitations in the data, and real-world problems of application; rather, they amplify how important these details are and how one goes about exploring them.

With the distinctions motif, the importance of clear turn-taking coordination is increased because turn-taking opportunities are often not clearly marked or easily predictable. Also, public discussion of the limits of one's knowledge is potentially a traumatic experience for teachers. Thus, the situation must be thought out in detail for team members to feel comfortable. The team may agree to a basically sequential pattern, where one lectures on theory and the other lectures on application. Shifting to a slightly more complex mode, the team may be comfortable with one teacher lecturing on theory and the other interjecting prearranged questions, demanding clarification of details or examples of specific applications. As the team becomes even more comfortable working together, they may develop a free flow of challenge to the theory with one teacher asking both prearranged and extemporaneous questions. The specific turn-taking agreement must be one with which the

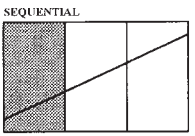
teachers are comfortable, which supports the lesson objectives, and which allows the pace of the lesson to be managed.

Resolution depends on the specific lesson objectives. If the objective is application, a fairly simple restatement of the major points of the lesson and the importance of application is appropriate. If the objective is to stress critical analysis, the resolution must emphasize the important distinctions that were uncovered, reaffirm the process by which the distinctions were noticed, and clarify the importance of those distinctions.

The dialectic motif. In Bloom et al.'s (1971) terms, the learning objectives here are synthesis and evaluation. The most complex motif is a dialectic exchange between the teachers. Here the objective is to illuminate debates and demonstrate honest professional disagreement. The dialectic motif is an explicit attempt by the instructors to move the learning experience even higher on Bloom's taxonomy and to demonstrate complex, professional relationships among sophisticated scholars. Specific roles for teachers range from each sequentially defending a thesis to a more interactive demonstration of free-flowing debate and collaborative attempts to develop a new synthesis. We have also used this motif to demonstrate collegial feedback on scholarly work in progress (including this article). The direction of the presentation depends on the lesson objective, the nature of the questions being examined, the comfort level of the team, and the characteristics of the students.

Turn-taking opportunities are least defined in the dialectic motif. Possibilities can range from a specific and structured debate format to a very free-flowing, seamless exchange of ideas—a demonstrated Socratic dialogue. Disagreement can range from the contrived (e.g., during a labor relations lesson, one teacher can take labor's side and the other management's) to the real (e.g., when a qualitative methodologist teams with a quantitative methodologist). Again, the specifics of turn-taking depend on the lesson objectives and the personal comfort of the teachers.

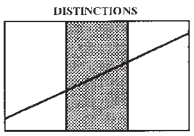
Resolution in this motif requires the teachers to explicitly step out of their dialectic roles to comment on the ideas that they have been articulating and the relationships among those ideas. If appropriate, they must clarify the process by which they analyzed the basic arguments, discovered important incompatibilities, and formed new combinations of ideas. In the end, they must reaffirm the existence of unanswered questions and discuss limits of their combined knowledge. The range of possibilities is immense, limited only by the imagination and comfort of the team. Resolution may be an articulation of the unresolved technical disagreements, an examination of a clash of values, or a clarification of great philosophical debates. It is always



Objectives:
Knowledge
Comprehension

Turn-Taking:
Simple lecture coverage

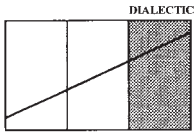
Resolution:
Summary and conclusion



Objectives:
Application
Analysis

Turn-Taking:
More complex and interactive

Resolution:
Clarification and implications



Objectives:
Synthesis
Evaluation

Turn-Taking:
Most complex and extemporaneous

Resolution:
Open-ended questions and professional preferences

Figure 2: 1 Team Teaching Motifs

an admission that there are some questions for which we (teacher or learner) do not have answers, an assurance that this is a realistic characteristic of our world, a challenge to the students to deal with this state of affairs, and a demonstration of skills that will help them cope. In any case, the important overarching lessons are reinforced: Cognitively complex issues do not have cognitively simple answers, and informed disagreement is acceptable.

Lesson resolution is critical in a dialectic motif. Here students are deprived by design of the comforting aspects of omniscient teacher-as-Authority. If resolution is not handled gracefully, they may become highly frustrated with the experience, miss the point entirely, and even question the teachers' competence (Perry, 1968). At the same time, if the learning experience is to remain on the higher levels of cognitive complexity, this frustration must be maintained, even nurtured. Dissolving teacher-as-Authority is a delicate process and this resolution must provide, above all, reassurance.

The three team teaching motifs are summarized in Figure 2.

The Team Teaching Experience

EVOLVING TEACHING TEAMS

The framework grew from 6 years of team teaching experience in an introductory management course. The course (sophomore level, approximately 50 students per class) provides a typical application-oriented introduction

addressing the management process as well as some basic business functions. Within the constraints of teaching loads and student enrollments, instructor teams were ideally constructed based on team teaching experience and functional expertise. Team makeup, not surprisingly, influences the learning objectives sought and the team teaching motifs applied. If a school or group of instructors is just beginning to initiate team teaching, their experience may be similar to the team evolution documented here.

Sequential motif. Most new teams began by using the sequential motif for the first five to eight lessons. Three factors appear to drive this. First, getting to know a new partner is of critical importance. One must become familiar with the other's personal teaching style and how they react in the classroom environment. Second, given differences between team members' backgrounds and knowledge, one or the other taking the lead in designing a particular lesson seems natural as new teams prepare specific classes. Lastly, topics early in an introductory management course often tend toward lessons lower on Bloom et al.'s (1971) taxonomy. This, in turn, leads to the sequential motif.

Teams used the familiar lecture format to build rapport during this period, working on transitions and turn-taking with straightforward topics. Lesson preparation begins, of course, with choosing the lesson objectives. The team members then identify key topics to address, decide who will present which topic, and establish time limits. As one example, a lesson on forms of business ownership is typical early in an introductory business management course. After initial agreement on the overall lesson structure, each instructor prepares his or her material independently, focusing on either sole proprietorship, partnership, or corporations. When one instructor finishes the lecture on his or her form of ownership, the teaching platform is passed by agreed on transitional statements, questions, or behaviors. Examples of transition signals are the following: "The next form of ownership is partnership," "What is another form of ownership?" or a simple head nod.

The benefit of starting with the sequential motif is that teams have time to experience and adjust to each other in the classroom. The main drawback is that being explicitly a lecture presentation, student input and participation is reduced and challenging teacher-as-Authority is not clearly demonstrated. However, after the first few lessons using this motif, instructors are ready to explore the distinctions and dialectic motifs in their lesson plan development.

Distinctions motif. A number of subjects in an introductory management course fit well with the distinctions motif and thus benefit from varied backgrounds of instructors, growing team member familiarity, and desire to

pursue higher learning objectives. Often this motif is introduced by having one instructor cover the basics of the lesson reading. As he or she proceeds through the lesson, the other instructor interjects finer nuances of the material, more detailed subject application, and/or personal work experiences. Team lesson preparation includes choosing topics and lesson objectives and deciding who will present the main topics (usually determined by the teacher's expertise) and what are appropriate application examples or analytic approaches. One instructor prepares the lesson topic material and the other does secondary research to bring applications/analysis to life. Following this they meet to coordinate the timing of the topics, exchange phraseology, and determine the resolution of the lesson. From our experience, preparation time for this motif increases by at least 1 hour versus the sequential motif.

The distinctions motif (with learning objectives of application and analysis) has been applied in topics varying from the planning process to motivational theories. For example, lessons on planning find one instructor explaining various models used in strategic planning, such as Porter's Five Forces, Strengths Weaknesses Opportunities and Threats (SWOT) analysis, and other planning matrices found in the students' reading assignment. The teaching partner illuminates this material using current local newspaper articles showing real-world applications explicitly using SWOT analysis. Particular attention is paid to explaining the difficulties in moving from theory to practice and the overall results of the process. The distinction between the theory and the application is made clearer by having different teachers with different point of views collaborate to present the total picture.

An example with more theoretical material could involve a lesson where one member lectures on motivation using Maslow (1954) and Skinner's (1953) motivation theories. The other team teacher provides a counterpoint to probe subtle and not so subtle differences between the two theories and the implications for management practice. Salient questions we might want students to learn to ask in such a lesson include the following: "Now that you have helped me learn Maslow and Skinner, what will I do differently than before?" "How do these theories affect management practice?" "What are the fundamental assumptions on which these theories are based and how do I analyze the distinctions?" The team uses the distinction motif to ask and answer analytical questions such as these.

Teams found that within this motif it is best to be as conversational as possible to avoid having one teacher viewed as the "real" Authority. A flowing treatment of subject content and application or analysis more effectively meets these learning objectives. Students observe the process of adding personal experience and study to assess the practical value of a theory. They also observe that theory application is more important than theory memorization.

Another potential benefit of this motif is enhanced student interaction. This motif encourages students to exchange their ideas and experiences to support or question the course material presented. Finally, broader topic coverage is possible due to the differing perspectives of the multiple teachers.

A difficulty is that the distinctions motif requires team members to devote more time to designing the lesson coordination pattern. Also, because during the lesson teams move from theory to application and analysis, more information is being presented to students than a simple lecture on theory. Thus, topic tradeoffs must be made. Adjusting lessons to balance topic depth with breadth is a challenge for all teachers. With multiple teachers, the difficulty can be amplified. Finally, if the team members have very similar backgrounds, personalities, and experiences, the advantages of diversity may be lost for this motif.

Dialectic motif. After acquiring comfort and capacity with the distinctions motif, teams usually want to explore the dialectic motif. In our experience, this motif is both the most challenging and the most potentially rewarding. The objective here is to illuminate debates and demonstrate honest professional disagreements. This is usually beyond normal teaching experience, particularly at the undergraduate level. Indeed, many topics in an introductory management course may not at first seem to have enough depth to debate alternative perspectives. Often, theoretical confusion and ideological conflict are submerged in introductory texts (Fineman & Gabriel, 1994). However, with carefully chosen topics and well-coordinated teams, this motif can create some very enjoyable teacher-to-teacher, teacher-to-student, and student-to-student interchanges.

Lesson preparation is essential because unplanned professional challenges in public can easily become uncomfortable. Basic subject material must be reviewed to assure the higher learning objectives are appropriate and attainable. Debate positions are then established, key issues reviewed, transition points identified, and possible student reactions examined. Essentially, the team mentally walks through the whole debate prior to class. This increases team confidence, anticipates problems, and establishes mutual trust. Often there will be no right answer to conclude the lesson with, so teams have to agree on how to leave this ambiguous situation with the students. Teams often found that one effective resolution technique was to have students write a short reaction paper to articulate their view. Another resolution technique was to use the debate to turn the question back to the students for discussion.

A classic topic area appropriate for this motif is social responsibility. One instructor can explain and defend a profit maximization perspective of social

responsibility while the other advances a strong multiple stakeholders view. Each advances his or her position as completely and convincingly as possible. The object is not to build a strawman argument to subsequently defeat, but rather to establish a bona fide, well-crafted disagreement. The potential for advancing learning objectives with this motif is relatively obvious. However, teaching teams also can have fun with this motif. Team members reported their personal growth as they explored ideas in greater detail to debate the issues. This activity was much more professionally challenging (and hence rewarding) than simply lecturing a well-known subject.

Similar to the distinctions motif, the dialectic's value lies in encouraging students to see and participate in the challenging of teacher-as-Authority. Multiple positions on issues can be articulated, providing a realistic perspective of what managers' worlds are like. Again, the dialectic motif takes additional time and effort preparing the lesson because the coordination between teachers is critical to the success of this lesson. Teams must also be careful of making the debates contrived or far-fetched, because students can see through the act and lose appreciation for the ideas presented.

TEACHER AND STUDENT REACTIONS TO TEAM TEACHING

The teachers' perspective. From our experience, teacher response has been generally positive (frequently after some initial trepidation). Teachers have found that the presence of another professional teacher in the classroom and during lesson preparation is beneficial in terms of feedback, support, and access to a different viewpoint. The social benefits of working closely with a professional colleague are valued.

Team teachers find a definite learning curve in terms of coordination, efficiency, and classroom effectiveness. Initially, preclass preparation is very time consuming for team members, but as they become more experienced and the coordination language more precise, time spent in preparation is significantly reduced. However, team preparation does take more time than single-teacher classes, even for experienced teams. Certainly part of this additional preparation is due to a structured and explicitly scheduled approach toward higher level learning objectives (beyond team coordination per se). To improve preparation, time motifs, examples, applications, and debates for particular lessons can be preplanned. Another method that teams used was to view team lesson preparation (particularly complex dialectics) as a multisemester investment. It is possible for a team's dialectic to grow even more robust and fruitful over the years.

Teams report that as they seek higher level objectives, there is increased emotional risk in allowing (seeking) public challenge by students. Mutual

trust and support among teachers are critical when dealing with dialectic presentations. The use of clear, structured language and explicit articulation of the desired objectives are useful in facilitating the development of this trust. Experience in the classroom with continued team improvement is essential to this trust-building process.

The students' perspective. Responses have been analyzed from 107 open-ended student evaluations with a critique form designed so that students could respond (or not respond) with their own ideas and words. General areas on which the students were asked to comment are instructor preparation, course applicability, and overall course assessment. Students were not specifically asked to address team teaching; however, approximately 50% did so voluntarily. Student response toward team teaching was generally quite positive.

Comments tended to mention these salient areas: (a) appreciation for greater exposure to Bloom et al.'s (1971) higher level learning objectives (application, analysis, synthesis, evaluation) and (b) increased enjoyment of the classroom learning environment created by team teaching (attention, responding, valuing). Evaluating learning at higher levels of cognitive complexity is extremely difficult (Perry, 1968) and the results reported here are neither statistically based nor of sufficient qualitative depth for firm conclusions. However, they do suggest that the students believed two instructors enhance interest, make the classroom more fun and informal, and improve student listening. This data is offered to suggest that this is a fruitful area for development. Clearly, further research is required. Typical student's comments are in Table 1.

The main area of student discontent was in the test and evaluation structure of the course. Again, student critiques were analyzed in terms of Bloom et al.'s (1971) taxonomy. The critiques indicated disappointment that the tests did not evaluate the higher levels that were obtained in classroom experience, with student comments such as "You taught concepts well, but then you tested definitions and terms" and "Class procedures did stimulate good discussion and I learned a lot . . . but test what you teach." Evaluation is a concern and a challenge for team teaching (indeed, for any attempt to move to higher levels of cognitive performance). Evaluations must mirror the cognitive level of the classroom experience (Bloom et al., 1971). Further development to focus the evaluations on the higher levels of cognitive learning is definitely required.

TABLE 1
Sample Students' Comments About Team Teaching

Views on higher level learning objectives
"Team teaching concept allowed us to see both sides and to draw our own conclusions on the material."
"Your lessons made me think and figure out the logic behind the concept."
"It seems that a lot of management is based on opinions on the best way to do things, and having two instructors take opposing viewpoints and argue the issues really helps students (or at least me) to think about and understand the issue."
Views on impact to the classroom environment
"The class was made fun and that contributed to the learning atmosphere tremendously."
"Team teaching makes the class more interesting and keeps us listening."
"Tag team teaching techniques really improves the class lecture. Single person monotone lessons are avoided. Instructors kept the course interesting throughout the semester."
"I like team teaching! It makes for an interesting class, especially in a class like this where most of the teaching is discussion."

Conclusions

Management educators face a continuing responsibility to develop innovative and productive ways of teaching. Team teaching is one method. With relatively little increased cost (when compared, for example, to interactive video or individually supervised, small-group projects), this method of instruction allows teachers to explore the upper levels of Bloom et al.'s (1971) cognitive domain and to broaden their own understanding of how their subject fits into the overall curriculum. Team teaching can model possibilities and encourage students to visualize, evaluate, and judge a variety of experiences within a supportive yet challenging classroom environment. The techniques can be used for one lesson, several lessons, or an entire course, depending on the subject matter, course objectives, and funding levels. Most important, team teaching can help students learn how to generate ideas at higher levels of learning. For educators, it moves toward the Socratic ideal of helping students give birth to new ideas.

Teachers may initially think that this approach to team teaching is risky. Giving up unitary control of the classroom, allowing one's own ideas to be publicly challenged, and openly acknowledging the limits of one's knowledge are in many cases emotionally challenging for teachers. However, increasingly we recognize that managers must be willing to challenge their ideas and examine the limits of their knowledge. We also recognize that more and more practicing managers must be comfortable working in teams and must know how to take sensible risks. If we hope to prepare our students for

these characteristics of the evolving work environment, then teachers of management should learn to be comfortable in a similar arena. Our framework's different team teaching motifs and protocols help mirror this environment, and provide teachers working as teams with the opportunity to model a wide variety of professional and multidisciplinary interactions expected in the management world.

Notes

1. We thank an anonymous reviewer for reinforcing this point.
2. The capital "A" is intentional. Authority in Perry's (1968) framework is the teacher's assumed ability and sometimes inescapable responsibility to define truth and goodness. Students often believe (alas incorrectly) that teachers have all the answers. Thus, they seek to memorize the teacher's conclusions rather than emulate the teacher's thought processes.

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