PART I - CARE and FEEDING of YOUR STUDENTS

(Suggestions for Professors with Student Management Teams)

Student management teams are a means to vest students with more responsibility for success and quality of college education. Management teams may be a way of stimulating in young people a desire to be teachers. They begin to see the teacher as a person rather than an authority figure, and indeed a person who genuinely cares about students, about teaching and about learning. If you are looking for a way to improve your effectiveness as a teacher, to raise your scores on your student evaluations, or simply to make some refreshing changes that can retrieve the luster which sometimes vanishes through doing something well too many times, then starting your own student management team is an excellent choice for both improvements and refreshing surprises. However, student management teams are not for everyone. Read this manual before you decide to actually form a team.

Students represent one of the greatest untapped potentials on campus for improving teaching and effecting change. Campuses don't always use available talents effectively, and there is no place in which this is more true than in the case of students. Student evaluations are not a substitute for communication, and research shows that evaluations *in themselves* have a miserable record for producing change. Performing a student evaluation only at the end of a class is an action somewhat akin to reaching for a map only after one is completely lost. Maps are better used to chart progress of a journey, and when so-used the issue of being lost just doesn't arise.

I (the senior author) became particularly impressed by the effect of rapport on student evaluations when I gave the University of Colorado's 37-point *Survey of Lecture Skills* to my evening physical education class that I taught in Wisconsin as an overload to my normal geology classes. The class was a martial arts class in aikido, run in the fairly traditional manner of Japanese aikido schools (which are <u>superb</u> models of cooperative learning). I received marvel-

ous ratings from the students in all categories, particularly the items that related to clarity, organization and effectiveness of lectures. There was one problem however; traditional martial arts teachers don't lecture — and neither did I. I got top ratings on lecture skills without giving a single lecture! Instead of lectures, I demonstrated with senior students, and then the class worked in pairs to perfect the movements and learn the concepts. I moved through the class and was able to work individually with practically every student. That personal contact brought superb rapport (a rapport that I sadly have not always been able to achieve in some other classroom situations). That rapport translated into some of the highest evaluations in the university, even on items *in which I had absolutely no business being rated highly*.

Since then, I have come to believe that student evaluations should really be called "student satisfaction surveys." Calling these surveys of "satisfaction" does not belittle their importance any more than customer satisfaction is belittled by manufacturers. One must acknowledge, however, that assessment of quality or quantity of knowledge gained, such as that which might be measured on tests, is not what is being measured during student evaluation. Student evaluation, particularly global questions used as rating items, show a high degree of reliability (i.e. — consistence) with correlation coefficients above 0.8 for classes of 20 students or more. Some faculty committees and administrators have noted that consistence; they then have (unfortunately for all concerned) presumed that the consistence actually translates into an actual measure of successful teaching (i.e. — higher achievement in standardized test scores, higher success of students in careers and graduate schools, better skills in creative or critical thinking, exceptional quantity of learning). In truth, we should make conclusions only on the basis of what we really measure. To claim that what we measure infers something valid about what we do not measure is very dangerous. If one is in fact preparing students successfully and yet receiving low or mediocre evaluations (and this <u>does</u> happen), then communication is likely at fault and there are few better ways than a student management team to improve that wrinkle.

While even the worst-designed of student evaluation forms will reveal consistent and significant trends of satisfaction, even the best kinds of evaluation forms are unlikely to capture the reasons *why* students are satisfied or dissatisfied with a course or an instructor. When great efforts are taken in hit-or-miss efforts by faculty to improve evaluations and nothing very beneficial happens, this is truly discouraging, and it can lead to burnout or movement of a good, capable person out of teaching and into another career field. Student management teams can do much to take the hit-or-miss guesswork out of what needs to be done to get improvements. To find solutions, **one must communicate and talk with students**, and the strong suit in universities, whatever else it may be, is <u>not</u> in promoting such communication. Until the reasons are known, the professor is left in a quandary about what action to take. Student evaluations are valid measures of student satisfaction, but student management teams go beyond evaluation to actually get improvements.

Our work (the collective work of faculty authors of this manual) with student management teams has drawn heavily upon our prior experiences from industry, research centers, professional societies and community endeavors. Universities are often structured in much the same way as a dysfunctional family, where the members avoid communicating. "Students," "administrators," and "faculty" are more likely to be counseled to avoid one another socially than to work together enjoyably and productively to build a true academic community. One only needs to read a single issue of *The Chronicle of Higher Education* to see how common are the disparaging views that faculty hold about their administrators and administrators hold about their faculty. Department and college structures too often include political and territorial baggage that prevent diverse faculty from working together as effectively as they could. It is small wonder that one of the major complaints of employers is the lack of social skills of new graduates that come from such university environments. Most students have never seen a good example of cooperative management within their university, and this is indeed an embarrassment for institutions which claim to be educating people in how to live rather than in just training them in how to make a living. Student management teams are a means to

restore essential communication about teaching and learning between students and faculty.

"Total quality management" (TQM) using similar principles of Deming and Juran is now being tried at universities to help restore cooperation between members of the academic community. Success in these endeavors will vary, primarily as a function of the sincerity and commitment that participants have in making TQM succeed.

ATTRIBUTES of STUDENT MANAGEMENT TEAMS

- **Consist of 3 - 4 students (usually) plus professor; one student is chosen by professor on the basis of energy, desire, leadership; others selected in a variety of ways, including election by class.**
- **Students are all from same class of the professor; an external facilitator is optional.**
- **Students have a managerial role and assume responsibility for the success of a class.**
- **Students meet weekly; professor attends only every other week. Meetings generally last about one hour.**
- **Meetings are all held in a neutral area away from classroom and professor's office.**
- **A written log of suggestions, actions and progress is maintained; professor retains log at the end of the term.**
- **The team is provided with its initial task by the professor that can relate to delivery or to the content.**
- **Utilize group dynamics approach of quality circles**

The Basis for a Beginning

A somewhat global charge of responsibility can be used at the outset.

"Students, in conjunction with their instructor, are responsible for the success of any course. As student managers, your special responsibility is to monitor this course through your own experience, to receive comments from other students, to work as a team with your instructor on a regular basis, and to make recommendations to the instructor about how this course can be improved."

Student responsibility thus defined is foreign to the traditions of most universities, which seem to assign all blame or credit for teaching and learning to the professor. Teaching is an interaction between a teacher and students, and a class can be improved or damaged by the actions, inactions, attitudes and behaviors of students.

In implementing the charge, our experience shows that two main themes of focus can often evolve, either or both of which can serve as pathways to improvements.

One is to **focus on the course** and to request team input with respect to syllabus, texts, content, emphasis, methods of covering material,

improving discussion, attendance and testing. This can begin immediately and has its greatest payoffs later in the semester, as students master and gain perspective of the subject.

recommending some ways in which improvements can be made. Others, bolder yet, have brought in their student evaluations from the past term, have pointed to the areas of greatest

WAYS TEAMS MAY FOCUS

FOCUS On the PROFESSOR

(a) Professor asks for help in specific area
(b) Professor may suggest use of a class survey
(c) Professor may bring in summary of last term's student evaluations
(d) Videotape of class might be studied by team (with or without an outside consultant).
(e) Student members of team suggest *maximum of two* changes in professor's approach that may promise benefits.

FOCUS On the COURSE

(a) Improving organization
(b) Improving clarity
(e) Terminating misconceptions
(f) Effectiveness of textbook
(g) Effectiveness of testing
(h) Promoting discussion
(i) Time-to-benefit analysis of assignments
(j) Preventing absenteeism

The second is to **focus on the professor** and to invite the team to suggest ways in which teaching style and general pedagogy can be improved. As one colleague states, "This is not for the fainthearted," but it is easy to implement and provides tremendous benefit that reaches beyond single classes. Several of our faculty have begun by providing the management team with the 40 - point *Survey of Lecture Skills* (a modification of a survey developed primarily at the University of CA at Berkeley) as a means to survey the entire class after a few weeks of teaching have transpired. Results from this computer-scored survey serve as a starting place to show which areas might yield the greatest improvements, and the team can commence with concern, and have simply said to the team members, "I want your help on improving in these special areas." Those with the courage to do this have reaped some of the most spectacular benefits. For students, it is sometimes a shocking revelation to see the kinds of comments that professors receive on evaluations.

Choosing the Team

The purpose of the team is to involve students directly in the development of their own experience. This involvement may be translated into "ownership." It presumes that the students who feel part-ownership in a course have a vested interest in its success and tend to view efforts to

improve teaching and learning as positive.

Because team members will share in discussions, they must be allowed to share in the information behind those decisions. That often means that the professor must provide the rationale behind the course content, the sequence in which the content is presented, the teaching strategies employed to implement the ideas or behaviors, and the measurements used to assess learning.

The students whom you choose for your team could be selected: (a) by lot, (b) as volunteers, (c) through nomination by peers, or (d) by personal invitation from the professor. Any mix of students — level(s) freshman through graduate, majors, gender, ages, ethnicity — all may influence the composition of your team. Survey courses, courses which are part of a major or minor sequence, graduate or graduate/undergraduate courses — all service different aspects of the student's education and engender attitudinal differences and motivations for taking the class.

Teams with nontraditional student members who had work or military experience flourish. These people sense quickly what is needed to keep a team productive rather than drifting. Such members convey these skills by example so that other members are stimulated to take initiative and responsibility too. A team without direction that lacks members with initiative will simply drift and will produce minimal results. **For this reason, a professor will do well to choose at least one of the team members based upon displayed initiative.** It is better to assure a productive team than to end up with a team of democratically-elected members, all of whom wait to be led.

In lieu of having nontraditional students with leadership or teamwork experience, some training in group dynamics can be used to get the team started. We found that teams that receive instruction do tend to achieve earlier results than do teams which learn by experience, but toward the end of the semester many teams without any training perform as well as those with training. Training may be essential to success at those schools on shorter quarter systems. Experience in leadership responsibilities among some of the student members of the team seems to be an effective substitute for formal training in stimulating success. The Appendix contains copies of handouts which have been given during training sessions to student management teams.

In retrospect, our initial participation in this project indicated that the following practices are helpful.

1. Make the selection of team members after the first 2 or 3 weeks of class. The instructor then has an opportunity to assess individual student interest, perceptions, creativity, and problem-solving abilities.

2. Invite students who have desired attributes to participate.

3. Talk with each candidate privately about the role he/she will play in the management circle. Upon acceptance, request a copy of the student's schedule of free time. Poor attendance will cripple the effectiveness of a student management team. Selecting of students whose schedules are too busy or whose personal tendencies are to lack disciplined commitment will result in too many cuts. Such students should be avoided as team members, no matter what their other qualities or criteria for selection may be.

4. Encourage students to meet weekly and with you twice monthly.

5. Provide an initial agenda for the first meeting (see last pages of this section). List some areas of your teaching performance, course, etc., that you want students to help you improve upon.

6. Be available on request for input, clarification, or to receive the results of the team's deliberations. Listen.

7. Follow up and implement selected student suggestions.

8. Remove any image of elitism at the outset. Inform the class that team is their representative in a quality-improvement role. Encourage class members to contact team members. Occasionally, come a few minutes late to class and give your team those minutes to poll the class for suggestions and concerns.

Provide clear messages to the students that this is voluntary on their parts and that the tangible rewards come both from improvements for students in their class and for future students whom you teach. Assure them that they are empowered to make changes. It is worthwhile to

add that this is an exciting experiment; it is being tried only in a few places and thus they are "cutting edge" in what they may discover.

Stages of Action

Initial *planning* takes little time and involves only the decision to form a team and assemble the members. However it is of paramount importance that this planning involve your commitment as a faculty member. If you do not show up for the bimonthly meetings with your team, your sincerity will soon be questioned. **Don't start a team if you aren't going to give it a fair chance of succeeding by supporting it with your presence.**

The second stage of *trust building* is very important. As the initial leader of the team, you should try to help define a goal which the team can easily succeed in achieving. Nothing breeds confidence and growing effectiveness faster than an initial success. After that success, the students will likely assume a more independent role in which they are encouraged to think more deeply and can then handle more challenging problems. You must be careful that your own set opinions do not result in belittling students' concerns at this initial delicate stage.

In *getting effective*, you will find that if you act upon the suggestions provided during the term, you will likely be surprised at how greatly these changes actually increase your awareness of students' needs and, eventually, how employing that awareness improves your students' satisfaction with your course. Most faculty are also pleasantly surprised about how innovative and useful their team members suggestions turn out to be. The most difficult challenge here will be to overcome your own propensity to keep things as they are. Within the limits of good sense, take some risks and see what happens. If students are starting to make their needs known, your positive response to these will likely provide benefits.

To reap *long-term gains*, it is important that the team keep a written log of progress. It can be helpful to you if you also keep notes and reflect on insights you've gotten or changes that will be needed. One of the most beneficial final activities arises when you have the log and notes in hand and look at the current syllabus at the end of the term. The ideal time to revise a syllabus is when the ways to improve remain fresh in your mind.

STAGES of IMPLEMENTATION

PLANNING

- Deciding to improve
- Forming a team

TRUST BUILDING

- Asking for help
- Outlining an initial task
- Settling on the first solution
- Implementing solution and informing class of change
- Evaluating success - giving recognition

GETTING EFFECTIVE

- Encouraging group to set next goal
- Encouraging group to come up with more than one alternative solution
- Reviewing their suggestions
- Adding your insights as a team member

REAPING LONG-TERM GAINS

- Planning for next term - Get team's insights and notes
- Reflecting - Let thoughts come over summer months; add to notes

Initial Directions and Practices

If you wish, you can announce to students early in the term that a student management team will be tried in your class. The charge at the bottom of page 3 makes a useful overhead with which to explain the function. You can invite people who are interested in participating to come see you before the team is actually formed. The team should not actually be formed before two or three weeks of ongoing classes because students need time to learn what will help them, and you will be looking during these early weeks for one or two individuals who display real energy to be useful team members.

Once the team is formed, you can save much explaining by **giving every student team member a copy of Section II of this manual**. It explains students' roles as team members and how student management teams may change ideas that students may have had about student-teacher relationships and responsibility for a class.

1) The team should meet weekly. You should meet with the team twice monthly, or less fre-

quently if the team so recommends. Teams will actually function differently when you are present. It is important to give students their space to develop ideas without any pressure and to let them develop their own team spirit and initiative as opposed to being led by you.

2) The team should meet in a neutral area away from the classroom and office. If you want to get the deeper thoughts from members, then it is essential that warmth and spontaneity eventually develop within the group. Student center eateries and coffee shops are thus good meeting sites. On occasion, some faculty meet their teams for an evening pizza.

3) One member of the team should function as a recorder at each meeting. The role of recorder should be rotated among members. Formal minutes are not necessary, but it is important to keep a record of what was discovered, what was recommended, how students' recommendations were implemented, and what degree of success resulted. Use a single notebook that gets passed between recorders. You will retain the notebook at the end of the course, and you'll find it very useful in preparing your next syllabus.

4) Remember, you are giving students <u>real</u> authority to make changes. You join the team as a member and as a major resource, but never as a boss and not always as leader. It is important that you listen and try to implement fairly the recommendations that the group makes. The fastest way to destroy your own credibility and to cause the team to fail in its function is to ignore or, worse, belittle your students' concerns.

5) Results are not free. Changes require time and work. You yourself must make the ultimate decision about how much time you have to invest in making change during the term. However, you must attend meetings that you commit to, and you must accommodate *some* of the team's suggestions during the year. If you do not, you will fall into the role of "unresponsive management," which is the greatest reason that quality circles in industry or TQM efforts in universities fail. A more complete list of pitfalls is found in "Care and Feeding of Your Professor," on page 21 of the section that follows which was prepared for students who serve as team members.

6) If you form a team, make contact with others who are doing so. You will have much in common with other faculty who are also trying this unique and exciting experiment. In our initial research, we had massive gatherings of students and faculty who were members of teams, and students reported on what they were doing and what progress they had made. These proved to be such exciting experiences in forging academic community that we launched a mentoring program based upon student management teams. You may wish to plan a group meeting of teams with other faculty.

Why Should Student Management Teams Work to Improve Teaching ?

1) The student management team idea is based upon principles of management rather than upon educational theory. Quality circles (QC's) in industry are respected as a means to solve problems and produce quality. Companies that exist to make profits are pragmatic, and those embracing "Japanese management" do so because it works. Corporations have happily experienced the circles producing results for themselves or, failing to use them, have unhappily seen QC's increase the strength of competitors.

2) Research by Dr. M. A. Shea of University of Colorado at Boulder revealed that the single common trait shared by teachers who were rated as outstanding was interaction with students outside the classroom. This contact builds rapport, and it affects student attitudes and student evaluations. Student management teams can secure that out-of-class time for anyone who chooses to use them; you don't have to be the student club advisor, a team coach, or a student organizational sponsor to get that time.

> ***"... The single biggest difference between effective faculty and their colleagues is the extent to which the former interact with students outside of the classroom."***
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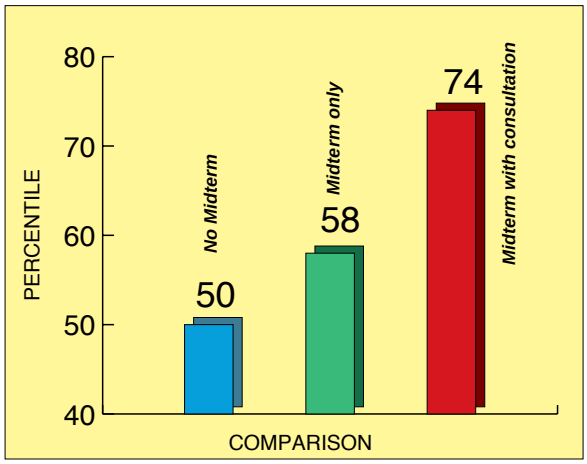
> (Shea, 1990)

3) Other evidence comes from the field of faculty development, particularly from research on student evaluations. The research of Cohen (1980) shows that evaluations produce major beneficial changes in student ratings <u>only when</u>



Graphical depiction of results of study by Cohen (1980, Res. in Higher Ed., v. 13, pp. 321-341). Faculty who give no midterm evaluations score in the 50th percentile on student evaluations. Faculty who give a mid-term evaluation and examine it raise their scores to the 58th percentile. Faculty who give midterm evaluations and have consultation about them raise their scores to the 74th percentile. Consultation is tremendously important in making improvements in student ratings. Student management teams can provide a large part of the consultation function.

consultation occurs afterwards. The value of consultation in use of student evaluations has also been documented by research of Robert Menges of Northwestern University and his former graduate student, Kathleen Brinko, now a faculty developer at Appalachian State University. None of these workers considered using one's own students for the consultation process, but our research shows that the student management team meetings serve the consultation function exquisitely. This is because the consultation occurs every two weeks, not just every couple of years, as is usually the case with faculty developers whom the researchers above relied upon. Further, students in the team are not part of an intimidating power structure occupied by higher-ranked tenured colleagues, chairpersons and administrators who might actually do damage in their role as "counselors." It is easier for professors to expose weaknesses in the context of getting the weaknesses eliminated rather than in the context of being judged for rank and salaries.

4) Research (Feldman, 1986; Erdle and Murray, 1986—see p. *v* this book) show that students' satisfaction ratings are affected by a complex assemblage of traits and behaviors. Improvement must come by working throughout the course at the level of the individual professor. Quality cannot be obtained *en masse* by administrative mandate nor by "inspecting it in" through *en masse* evaluations given at the end of a course.

5) Of faculty who try this, odds are that at least ten out of eleven will achieve benefits from the student management team approach that they will endorse as worthwhile. Of students who were involved as team members, over 97% state that they would serve as team members again. **In forty classes where these teams have been used to date, students noted specific improvements in every one.**

Three brief reports from faculty follow, one from a faculty member in English, another from a faculty member in engineering, and a third from a member in business administration. These were prepared in response to the question, ***"What would I like to tell other faculty and our UW - System sponsors in Madison about my experiences with this year's Teaching Excellence Center Project?"***

Two primary functions of the Office of Teaching Excellence Center are providing support and feedback for faculty through consultation and videotaping of classes, and using student management circles to improve course content and pedagogy. Both functions, I find, reinforce education—teaching as well as learning—as a process of interaction and connectedness. This may be a simple and obvious observation, yet the significance of connectedness in the classroom, and in the university as a whole, is generally all but ignored. The two categories of professor and student in most undergraduate education are quite distinct, non-overlapping, whereas in reality professors learn as well as teach, and

students teach as well as learn. Management teams merely bring into focus these shared functions and stimulate further networking. They provide a place to share ideas across that great gap that is generally perceived to lie between the professor's desk and the front row of students' desks. Not only do the management teams engender connectedness, but faculty support for teaching does too. Consultation among faculty about their own classroom presentations eliminates the isolation too often felt in this age of Education As Administration; collegiality and professional empathy can begin to cross department and college boundaries; and friendships bloom, giving university politics, at the faculty level at any rate, a decidedly more fragrant smell. My focus on interrelating, on connectedness, in the transfer of information is not randomly or conveniently chosen, but is rather a focus which inscribes what is necessary, especially today, to exist well or at all.

Management teams may be a way of stimulating in young people a desire to be teachers. They begin to see the teacher as a person rather than an authority figure, and indeed a person who genuinely cares about students, about teaching, about learning. Persons can be role models and inspirers; authority figures generally not.

Management teams are a way of providing a partial substitute for the general lack of individual attention students receive in most classes, particularly large classes. They are a democratic way of focusing on a smaller number of students, paying attention to <u>their</u> concerns and suggestions, and thereby ideally and indirectly paying attention to all students (to the extent at any rate that the management team is representative of the whole). If classes were small enough, if teachers were not overburdened with four sections each semester, the processes used in management teams would be automatically incorporated in the class at large, or at least <u>could</u> be.

Much of education privileges the professor. Student management teams restore some measure of equilibrium to the process of information transfer by allowing students to reclaim their own education, by allowing them to see their own education not as something done to them, but rather as something they do.

Student management teams encourage the use of critical thinking and meta-thinking. What happens in the classroom must be put into larger contexts of the total educational process, pedagogy, and personality interaction.

Mary Patricia Dalles, Assistant Professor, Department of English

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The most valuable aspect of the project to me has been the use of student management teams. This allowed students to be queried for constructive criticism in a nonthreatening manner. The management team then shared the summarized results with me and acted as a sounding board for the development of the ideas.

Out of this process I have changed the order of material presentation, restructured small groups, changed from groups to pairing for outside projects, revamped my handouts, given more exams and fewer papers, and better clarified my expectation. Although many of these changes were not major, the feedback from students through personal discussion and the management team has made it very clear that they have enhanced learning. The class I used this concept on (thinking through a problem and making decisions) is a process rather than content course and thus more difficult to teach. Thus any change which facilitates improvement is usually slow and laborious. The management team concept has created a fast and enjoyable way to change and improve.

The other aspects of the project were videotaping a class session and administering a developmental questionnaire. The two aspects allowed me to better understand my delivery of material and to use my delivery strengths and work on delivery weaknesses.

I feel all faculty, no matter how good or bad, would gain insight to improving from participating in the Teacher Excellence Center. I do feel that it has to be voluntary participation and approached with the desire to listen, learn, and improve.

Steve Kleisath, Business Administration/Extended Degree

As professionals, we all realize that research projects could end in failure just as easily as they could end successfully. Failure, in itself, is at least frustrating, even though the information generated by an "unsuccessful" project is often just as valuable as a "successful" one.

So it was with that I embarked with my colleagues on the Teaching Excellence Center Project here at U. W. Platteville. Frankly, I would be lying if I did not admit that I did so with a hearty degree of skepticism. Several biases undoubtedly fueled this uncertainty:

1.) How could I possibly learn anything from my students? Why, many professors vehemently argue that student evaluations used by many universities are nothing more than meaningless popularity polls. The use of a student management team to critique my course would merely magnify this absurdity!

2.) How could I possibly learn anything about teaching from my non- engineering colleagues? How could they possibly learn anything about teaching from me? Our courses are so different that certainly we are not qualified to critique or help each other!

3.) It's too late to change! I've been teaching this way for ten years and the Teaching Excellence Center can hardly change me now! Besides, what do I have to gain from changing or adjusting my teaching methods?

One year later, I can honestly say that my skepticism was totally unfounded. Not only I have learned more about "teaching," I have also learned much about my colleagues, my students and myself.

First, I did learn from my students! From my two student management teams, I discovered that I could relate effectively to my students and they could effectively relate to me. Sure, they know no more (and probably less!), than I do about teaching. But they could tell me when I was getting my point across, and when I wasn't. They could tell me when they were overwhelmed, and when they understood. From their perspective, they not only gave me suggestions on improving the course, but also complemented me on aspects of my teaching that they thought were positive. Together, we discovered what worked best for that class - not for every class. All of us completed the course with a true sense of accomplishment.

Secondly, I did learn some things from my colleagues. I even think that they learned a few things from me. Even with little or no comprehension of the subject matter, we could effectively analyze each other's teaching style in a non-hostile learning environment. The experience of working with colleagues outside my college was in itself so positive that I would embark on the entire process again if that were the sole benefit to the project. I found that the support and exchange of ideas offered by the pilot staff was truly inspirational and rewarding.

Thirdly, even though I believe that I have been a successful teacher during my career, I could make positive changes to my teaching methods. While some changes were harder to implement than others, I found myself continually making a conscious effort to improve. It is difficult for me to gauge if the Teaching Excellence Center Project raised my individual classroom student evaluation scores. But honestly, I don't think that is necessarily an objective of the project. If we can assist the teacher and the students in creating a better learning environment, positive feedback will be forthcoming. I do know that my experience was truly enlightening, and I feel my teaching skills have improved and will continue to improve. The Teaching Excellence Center Project worked! When do we start again?

John A. Krogman, Assistant Professor, General Engineering

The above statements are representative of teachers' responses. None of these individuals was a "believer" in student management teams before trying them. These were pioneers, trying the idea for the first time and seeing what the results would be.

Pitfalls and Healthy Criticism

Professors who use these teams should read **Part II - "Care and Feeding of Your Professor,"** particularly the list of points that outline why quality circles fail in industry. There is no need to duplicate that material again in this part. However, below is a listing compiled from student responses. It is useful for learning some trouble spots that students noted in use of the teams. We solicited their response by the following statement.

We are including a chapter in our report titled "Pitfalls and healthy criticisms." This is intended as a resource on difficulties or problems to look out for during the course of a semester. It will be used by new teachers and students who try student management teams for the first time. If you were to contribute a statement or anecdote that would be helpful under this theme, what would it be?

This question was added in order to invite devils' advocate stances from students. Students' responses ranged from "no response" (9) to essays (2). Eighteen students made suggestions only for group members; thirteen students focused only on suggestions for professors, and one student addressed both students and professors. Answers are grouped here by topic, followed by a lesson of what they teach us about planning and working with student management teams. The sample used for this chapter is small but typical.

A. Three suggestions were made concerning the scheduling of meeting times. This is a major pitfall. If you can't meet regularly with everyone, you have a major problem.

LESSON: **Since students need instruction about SMT ideas and techniques, the "group" meeting at the beginning must be scheduled so all may attend. Scheduling team meetings so that all may attend is important. Some students may not be able to participate at all if they can't match other students' schedules. Get started between 1 month and about midterm, after students know you and the course. Meet regularly.**

B. Students who chose to address professors grouped their suggestion around **(1) communication and understanding student viewpoints** and **(2) the importance of implementing suggestions.**

Typical responses regarding communication and understanding follow.

a. Instructors must remain "open minded. " (This suggestion appeared twice concerning two different groups).

b. Don't lose touch with student needs and problems.

c. Try to remember what students are experiencing in life and the college experience.

d. Remember what it was like to be a student.

e. Give students room for suggestions.

f. Don't refuse to accept criticism or beneficial ideas.

g. Realize some complaints are valid.

LESSON: **Professors must remember how difficult this communication situation is for students. Many students are very sensitive to professor attitudes and choice of words or phrases. What we may see as ironic or satirical can easily be interpreted as a "put down" or rejection. Even our choice of words may be alien to students' vocabulary or understanding. Failure to respond may be perceived as "closed minded" when, in actuality, we have taken suggestions positively. Communication should also be aimed at student experiences outside our class to avoid a perception of having lost contact with what it means to be a student. At the same time, it must be conveyed to students that nonacceptance of a suggestion does not mean that it wasn't considered seriously. This is an opportunity to enlighten students about the problem.**

Typical responses that show importance of implementation follow.

a. Honestly try suggestions.

b. Show efforts being made to try improvements.

c. Don't remain "set-in-your-ways."

d. Don't refuse to accept criticism or beneficial ideas.

e. Bring students into day-to-day process.

LESSON: **Obviously people become irked when they see their ideas ignored, especially when they have been asked to meet specifically to make such suggestions. The key may well be the involvement of students in the day-to-day process. Showing students why you are not implementing a suggestion (syllabus conflicts, alternate goals, scheduling difficulties, etc.) may ease such problems. Every effort must be made to communicate about suggestions even if the suggestions are not to result in action. Such communication really helps students see the course from the viewpoint of a teacher, just as they seek to have us see the problem from their viewpoint.**

C. Students who chose to address other students grouped their suggestions around **(1) making realistic positive suggestions, (2) minimizing "fear" and encouraging open participation,** and **(3) relationships between instructor and students.**

Typical responses regarding positive suggestions were:

a. Nobody will listen to "bitches" and "gripes" - seek reasonable and effective alternatives.

b. Don't just complain - seek positive criticisms. (3 responses)

c. Note strengths as well as weaknesses in course.

d. Present realistic ideas for change.

LESSON: **Such responses would appear to be aimed not only at keeping the process of course modification moving along, but also keeping all members of the SMT on track. A pitfall would seem to be students who slow the group by airing personal complaints and wasting time with self-serving suggestions for improvement. There is opportunity here to promote personal growth and stronger social skills in these students, particularly if <u>the group</u> addresses the problems they may be causing rather than just the professor. The professor may be rejected out of hand by some difficult students who are still hanging on to the old "they and we" teacher-student adversarial models that actually provide an excuse not to mature. If student peers validate the same concerns as the teacher, that excuse and limit to growth and maturity is removed. They are really forced to confront the power and results of their own actions.**

Typical responses to minimizing fears follow.

a. Don't be afraid to contribute (2 responses).

b. Get involved and take chances.

c. Keep class members' names anonymous.

d. Show respect and concern for anyone's opinions - build on them.

e. Cooperation is essential.

LESSON: **Any small group will experience internal problems that stem from individual differences. Some persons don't speak up, some dominate, and others seek to keep the process moving. It is probably an excellent learning experience in itself to put students in small-group problem-solving situations, especially if we give them training or instruction in group processes.**

Typical responses regarding student-teacher relationships in the circle follow.

a. If instructors don't try changes - call them on it.

b. As a student you have a right to voice ideas.

c. Don't give up - stand up for your ideas.

d. Seek open communication with students and professor.

e. Instructors and students must listen to each other's point of view.

f. Understand the teacher isn't a "bad guy" — relate as adults.

LESSON: **While it is clear some students see the need for increased communication and open relationships, others perceive of the professor/student relationship as adversar-**

ial. There could well be a relationship between the perception of instructor's not implementing suggestions and the need to "stand up" for ideas. The focus should remain on interacting as adults who are involved for a central purpose. This will go a long way to breaking down the "we/they" mind-set that results in an adversarial relationship and bad cooperation. Maybe then the faculty can retain their image of "good guys" who really care about teaching and learning.

It is important to note that these insights were obtained by a questionnaire that was filled out anonymously by the student team members at the end of the semester. There is a copy of that questionnaire at the end of Section II (pp. 31 - 33). It might be worthwhile after the team has met for a month to six weeks to have students complete that questionnaire and bring up their concerns at the management team meetings so that perceptions and problems can be examined and confronted. Even with the success of these teams, it was obvious that some opportunities were still being lost through non-communication.

The First Meeting

We provide suggestions in this part and in the following part to help you and your students to structure your first meeting together. **These suggestions work best if both students and professor have read their respective sections of this manual prior to the meeting.**

Along with initial introductions, exchange names and phone numbers in writing so that you can communicate as desired.

As a professor, it is best if you begin now to practice the skill of listening to students rather than speaking to them. A good way is to ask each student in your team: "What did you learn from reading your section of the manual?" "What are your major aspirations for this team?" and "What are your major fears, if any?" Ask each student to explain why he or she consented to serve on a team. One of these people is likely to ask you in -turn why you consented to form a team.

At the end of this listening session, let them ask you their questions (their Section II has a "first meeting" suggestion list too).

You can break ice here if the conversation lags by explaining to the team the reasons for the course, its relationship to the field or profession or general education, and what you expect to accomplish. Ask the team if their expectations and concerns for the course are in accord with your own. Unless this is a new offering, you can bet your students have heard about your course and have some preconceived biases, concerns and reasons for enrolling. This is especially true on a small campus. Learning these can be a good starting point. Bring up particular concerns or problems that you discovered when teaching this course. Assure the team that they are free to select an agenda of their choice.

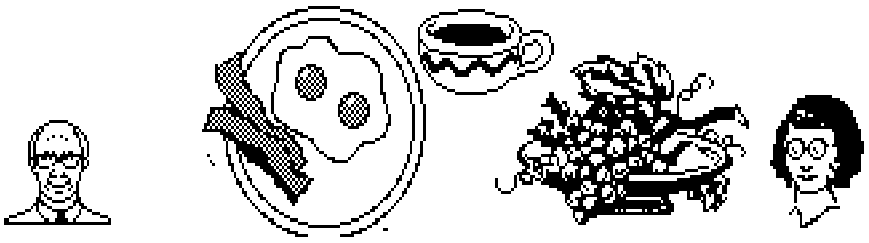
If you want the team to focus on your teaching rather than on your course, you might suggest that the team use a good student evaluation survey tool to note what the general class already sees about areas of your teaching that could be improved now. Alternately, supply the results (if you have a good multifaceted evaluation tool) from the last time you taught the course. **Your own willingness to see areas that can be improved and asking for students' help in how the improvements can be made are sure ways to get the team warmed up to produce results.**

By the close of the first meeting try to define one small goal — one that can be accomplished without much difficulty, and set a deadline for recommendations. Early success is vital to building group confidence, and deadlines help the group to get into the habit of making good use of their actual meeting time.

INGREDIENTS HELPFUL to SUCCESS

- Adequate social skills of participants
- Willingness to listen
- Willingness to take risks
- Trust

PART II - CARE and FEEDING of YOUR PROFESSOR



(SUGGESTIONS for STUDENT MEMBERS of STUDENT MANAGEMENT TEAMS)

We invite your involvement in a *student management team*. It is far more likely than "evaluating professors" to improve the class you are in, and it will very likely improve it markedly for hundreds of students who will follow you. Moreover, it will probably improve your professor's desire to teach better, restore his or her faith in students and your own faith in professors, and give you tremendous managerial skills that you can use later in life. Students often believe that only the professor is responsible for the quality of a course and that students are powerless to enact change. In fact, students have power of which they are unaware and they simply fail to use it.

In 1990 and 1991, students at University of Wisconsin at Platteville demonstrated the error of the image of the "student as powerless." These students not only improved their professors as teachers, but they also improved their own social skills and those of their professors. They rekindled in some of their professors an enthusiasm for teaching and learning that had become subdued. In the end, they realized that students are as responsible for the quality of a course as are their professors. If twenty courses can be so improved in one short year, whole universities can be improved dramatically in a short time. All it takes is students realizing that they can be effective *colleagues* with professors in the building of a true learning community.

Student management teams come out of the concept of quality circles of industry and the lifestyles of researchers that allow them to stimulate one another to achieve breakthroughs in research centers. Although the names "quality circles" and "brainstorming sessions" are contemporary, the idea is not new, and one should not attribute the origins of working together to contemporary authors of management philosophies. Informal discussions that produce breakthroughs and improvements arise from both the astounding creative capacity of the human mind and the natural inclination of humans to work together. The first "quality circles" may well have been a group of mammoth hunters discussing better and safer ways to obtain their next meal. Cooperation was once a life and death matter. Only as general cooperation became nonessential to survival was it even possible for such cooperation to become a lost art. Organizations can survive without cooperation, but such organizations are seldom inspirational places in which to work.

Other than in research centers, sincere informal discussions that involve all levels of the organization have become rare in universities. The formal meeting run under Roberts' Rules of Order has become the accepted way to interact among members of the university, and the limitations of such structured meetings are seldom questioned. The attendants of formal meetings are not diverse; they usually come from within narrow organizational units. Attendants of these meetings are not simply free to raise the topics that most concern them. Formal meetings do not stimulate new ideas or produce breakthroughs. Successful research directors know the function of informal discussion and the value of the team spirit that comes from human support supplied by groups. They support informal discussions

that are held usually outside the work place, because they know what occurs in them.

Edwards Deming saw the potential that informal discussions between co-workers and management could bring to industry, but his ideas were initially ignored by American boss-managed corporations. Japanese companies were faced with rebuilding a shattered national economy, and thus cooperation for them, as for the mammoth hunters, was a question of survival, not mere political control. Under these conditions, it is not surprising that Japanese companies generally and enthusiastically embraced the cooperative management techniques like those suggested by Edwards Deming. Cooperation among very average people produced the transformation of Japanese manufacturing from the time when "Made in Japan" was a synonym for shoddy junk to the present, when Japanese quality is the very standard by which product excellence is defined.

How Student Management Teams (SMT's) work

Student management teams rely on the creativity that thrives in an environment of cooperation and group support. The teams *consist of about 4 students plus the professor*. The *students are all from one class, have a managerial role, and assume a part of the responsibility for the success of a class*. The *students meet weekly* and the professor attends only every other week. The *meetings are always held away from the classroom and the professor's office*. Lunch meetings at a table in the student center or nearby restaurant work very well. The purpose of the group is to improve the course. *The dialog should be informal but purposeful*. The group should begin to meet between about a month to just after midterm, after students have a feel for the professor and the material. To make improvements, the *group may focus on either the professor's style of teaching or on the content of the course*. At every meeting, *a recorder should be appointed and a notebook retained that logs the progress of suggestions made, the actions taken, and the degree of effectiveness of implemented suggestions*. A different leader should be appointed from time to time. The professor may serve as the leader, particularly at the first meeting, but students should serve as the leader for at least 75% of the term. At the end of each meeting, the recorder should summarize quickly what was accomplished and what needs to be thought about before the following week. Student management teams go far beyond "evaluation." Student management teams work to improve teachers, not to rank, label, or blame them.

The following quotation was the charge given to 80 students who comprised 20 student management teams of ten faculty at University of Wisconsin at Platteville during 1990 and 1991. At the end of the year every course in the study registered improvements as noted by students. Over 97% of the students involved said they would participate in such a project again. These trends have subsequently held true.

"Students, in conjunction with their instructor, are responsible for the success of any course. As student managers, your special responsibility is to monitor this course through your own experience, to receive comments from other students, to work as a team with your instructor on a regular basis, and to make recommendations to the instructor about how this course can be improved."

What are Professors <u>Really</u> Like?

Professors are, first of all, humans like you. They react positively to positive treatment and will withdraw commitment and performance from those who abuse or ignore them. Many friends whom you know today as "especially good students" are likely to be typical of your professors when they were undergraduates. Professors are high achievers who love learning and are particularly committed to their disciplines. A valid doctorate is not something that an uncommitted, uninspired dabbler can obtain as a hobby.

No one enters teaching with the intention of disliking it or doing a bad job for students. It may be difficult for you to realize that even the professors you view as the most irritating, crotchety curmudgeons — those who seem to hate teaching — once radiated joy and satisfaction about their chosen disciplines and about students. A number of circumstances can operate to beat this joy and enthusiasm out of professors over time, but that damage <u>is</u> reversible, and students have great power to restore those desired qualities. Other

RESPONSES to SELECTED SURVEY QUESTIONS

RESPONSES FROM:

	STUDENT MANAGEMENT TEAM MEMBERS	FACULTY MEMBERS
DID THE MANAGEMENT TEAM CAUSE NOTABLE CLASS IMPROVEMENTS?		
YES	85%	75%
YES (QUALIFIED)	14%	25%
NO	1%	0%
ARE MANAGEMENT TEAMS EFFECTIVE IN IMPROVING COURSE QUALITY?		
YES	75%	70%
YES (QUALIFIED)	25%	30%
NO	0	0%
WOULD YOU PARTICIPATE/USE MANAGEMENT TEAM AGAIN?		
YES	97%	91%
YES (QUALIFIED)	3%	7%
NO	0	2%

Results of survey from 60 student management teams. (See also pp. 23 - 30 which summarize results of one sampling of ten teams)

humans' demonstrated interest and concern are the most powerful influences in undoing that damage. Support rekindles joy and satisfaction and inspires undertaking challenge. Professors begin to shine when they realize a student has genuine interest.

Most professors entered teaching when they discovered how wonderful it was to share that joy and satisfaction with students. When students show no particular interest, the very purpose for which the professor chose his or her career starts to vanish, and soon it becomes easy for burnout to set in or for outside professional interests to fill the gap left by an apparent lack of interested students. If "students don't care" why make the strenuous effort to maintain skills at that cutting edge or to prepare updated, detailed class materials? Eventually a professor, once highly-skilled and full of enthusiasm for students and teaching, may be listed among those whom students rate as uncaring or incompetent. To see if you might be contributing to that pattern of burnout, recall when the last time was that you expressed interest or satisfaction in learning to one of your professors. Be honest. *If you yourself haven't actively helped to make that academic environment one that is encouraging to your professor, you are partly responsible for the sterile, dull environment in which you may now find yourself.* Don't underestimate your power to change it for the better, and don't underestimate your responsibility for creating the quality of your own learning environment.

How Have Students Traditionally Helped Professors to Improve?

By and large, students haven't helped because they haven't been shown how to improve the system nor have they been sincerely invited to help.

The tool that students have been frequently told will help prevent bad teaching is the student evaluation form. Universities would do everyone a big favor if, at their new student orientations, they took the time to educate students about teaching evaluations and their use. Most univer-

sities do nothing and leave the entire campus to suffer for this omission. It is too easy to fill out a form in the last week of class and feel that in this ten-minute task that you have performed some meritorious function. Odds are that, in most cases, the forms won't bring about the improvements you desire. In the worst cases, evaluations become a bureaucratic exercise with results being grossly misused to pit professors against one another rather than used to make worthwhile improvements.

Some students give little thought to the questionnaire or to the effects their comments may have. Students often mark areas that they know nothing about as "average." One example might be rating on a scale from 1 (poor) to 5 (excellent) whether the professor is available for outside help. Students who never approached the professor for help (and most do not today) really haven't the foggiest idea of whether the professor was available. Yet students without this knowledge, unless they are warned about the problem, customarily will circle a number, usually the "3," because it carries for them a connotation of ambivalence about the issue. What the "3" really signifies on the form is not ambivalence, but instead expresses that the professor was available only about half of the time that the students with need went to seek help. For professors who keep all office hours plus some on evenings and weekends, the resulting rating belittles their extra efforts, and they may soon cease making them, particularly if they see that they get the same "3" ratings as the person who teaches his or her classes and just splits for home.

The most damaging viewpoint is the belief that student evaluations are a weapon designed to be used to punish professors for perceived transgressions. This view subverts evaluations as instruments for positive change. To understand why merely giving a bad evaluation (especially with caustic, abusive comments) won't produce improvement, consider a case where you were doing poorly in a class and the professor ignored you, never suggested how to improve, and gave you a bad grade on the last day (evaluations are also normally given at the end of a course, when all opportunity for change and benefit are gone) along with a few insulting and very personal remarks. If you do not consider that as particularly helpful in making you want to improve, then realize that this is precisely what occurs to professors when they are given poor end-of-term evaluations by students who never come in for help or who never speak up in class to reveal what appears to them to be an obstacle to their own learning. Certainly, there are valid reasons to give bad evaluations just as there are valid reasons for giving failing grades, but that should only occur as a last resort after efforts have been made to correct the problems, not as just a casual response.

Student senates sometimes embrace a variant of the student evaluation to publish a comparative campus booklet to "warn" students about "bad professors." To recognize how these work against improvement, consider what would happen if professors were to publish similar books annually about students in order to "warn" future teachers about "bad students" — "John B. sleeps in class," "Susan J. can't write a paragraph without four spelling errors," "Gary F. is a gossip who turns classes into snakepits," "Jane M. cuts class every Friday to visit her boyfriend in Chicago" or "Paul H. cheats on tests!" A copy could be kept on file at the placement office to also "warn" visitors and interviewers. If your name appeared next to such a comment written by an anonymous writer, you might feel that such a book could bias your chance at getting a fair shake from life in the near future. It would produce a bad attitude about professors who would do such a thing to you, and the last thing it would do would be to "improve" you or make you appreciate your college experience. Remember, professors are humans, just like you. The degree to which public humiliation kindles your interest in learning is also the degree to which public humiliation helps your professors improve their teaching. An alternative that would build community morale would be a listing of the highly-rated teachers in the campus newspaper along with a "Thank you!" message from students.

Research shows that the most marked improvements that occur from evaluations come when well-designed evaluations are used as the basis for follow-up consultation. Faculty who have consultation after their midterm evaluations are likely to advance from the 50th to the 74th percentile on final evaluations.

Consultation should be nonthreatening. It is certainly not the dean or chairperson yelling "Bad! Bad! Bad!!" or a committee punishing a

professor with no raise. Consultation can be time spent with a trained faculty developer, mentor or colleague who knows how to be supportive, how to use evaluations to see where the problems lie, how to help the faculty member find ways to make improvements and, ideally, how to regain the self-confidence and enthusiasm that a penalty-oriented evaluation system may well have damaged or outright destroyed. Student management teams can also help to supply that follow-up consultation. Consultants usually are not prescriptive. Most serve as the "guide on the side" as the faculty member begins to see clearly those areas that need improvement. Progress is made through supportive informal discussion — functions that can also take place in team meetings and through serious reflection between meetings.

Literature on student evaluations also shows that evaluation results have bias in that students evaluate professors based on what they have come to expect before they enter the classroom. If you have been told only bad things about a professor, you will likely see and remember those things even if they rarely happen. It is good to keep in mind that a professor with low evaluations who is making remarkable progress in improvement may still be fighting bias for a year or two after he or she becomes very accomplished. The more a team's members interact with other members of the class regarding teaching, the better the class understands the efforts and can credit the progress being made.

Why Weren't Student Management Teams Started Earlier?

The university is made up, not of simply diverse groups, but sometimes of diverse isolated groups that may well have lost the vision required to see the joys or benefits of informal communication with other groups. Students, faculty and administrators all relate among themselves in separate groups and all have helped to entrench a kind of dysfunctional structure.

A dysfunctional family is one in which communication problems abound; personal isolation, suspicion, resentment, and dissatisfaction are the typical results. The ways people learn to communicate with one another within a dysfunctional structure are limited. At the university level, poor communication cripples the building of a true learning community and precludes students' learning good social skills through example. Quality circles and student management teams are the antithesis of dysfunctional structure; people commit to communicating, trust-building and learning to recognize and respect one another. As a result they can begin reaping the benefits that result.

Your professor is influenced by activities within the university that go far beyond what you see in classrooms. The negative aspects of that environment explain, at least in part, the transition from the new, altruistic, enthusiastic professor to the withdrawn, pessimistic, burned-out faculty member whom students dread. Those responsible for faculty burnout are administrators, faculty, and other students like yourself. The best way to avoid dealing with burned-out professors is to stop participating in practices that produce them.

The Importance of Social Skills

There have been many articles written that lament the inability of American industry to compete in an international market. In 1988, the American Society for Training and Development, in conjunction with the U. S. Dept. of Labor, published a one-page list titled *"Workplace Basics: The Skills Employers Want."* It is pertinent that these skills are not all technical or intellectual skills; instead most are social skills that enable groups of people to work together enjoyably and productively. These skills are desired because self-centered or cliquish behavior limits personal growth and constructive use of talent. As we noted above, universities in general have not made much effort to teach good social or good personal interaction skills. In fact, university structures and practices can be the antithesis of good models of cooperation.

Research at the University of California at Berkeley revealed that a primary reason that Asian students excel in mathematics and science is because of their cultural tendency to help one another master the material in study groups. They are essentially proving the adage that "No one is as smart as all of us!"

The Johnson brothers at University of Minnesota have spent over 25 years developing "co-

SEVEN SKILLS EMPLOYERS WANT

LEARNING to LEARN
(The ability to apply new information quickly and effectively)

LISTENING and ORAL COMMUNICATION
(Schools offer instruction in writing and speaking but little in effective listening)

COMPETENCE in READING, WRITING and COMPUTATION
(Includes use of analytical and critical thinking in applying these skills)

ADAPTABILITY: CREATIVE THINKING and PROBLEM SOLVING
(Success depends on creativity in solving problems and overcoming barriers)

PERSONAL MANAGEMENT: SELF-ESTEEM, GOAL SETTING/ MOTIVATION, and PERSONAL/CAREER DEVELOPMENT
(Taking responsibility for enhancing job skills to meet new challenges and achieving pride and satisfaction in accomplishments. Universities currently emphasize "getting a job" rather than looking further ahead to develop broader skills useful for advancement and a satisfying life.)

GROUP EFFECTIVENESS: INTERPERSONAL SKILLS, NEGOTIATION and TEAMWORK
(Workplace success depends on enhancing respect for contributions from all members of an organization.)

ORGANIZATIONAL EFFECTIVENESS and LEADERSHIP
(Employers desire people with a sense of direction and purpose, an awareness of how they themselves can contribute, and the ability to motivate co-workers to contribute the best of themselves.)

Based on *Workplace Basics: The Skills Employers Want,* 1988, American Society for Training and Development and U. S. Department of Labor.

operative learning," which has brought highly sophisticated models of cooperation into the classrooms of many primary and secondary schools. Cooperative learning simultaneously builds content knowledge and social skills of students. It is just beginning to make inroads into universities.

Student management teams are not "cooperative learning." but instead are methods of improving college teaching by giving students a managerial role and responsibility outside the pedagogical domain of the classroom. They tap the insights of the students to help build an academic community in which students can make significant contributions, take credit for, and have pride in their success in improving classes and the whole institution. Study groups, cooperative learning groups, quality circles, student management teams and research groups have one common shared area — success in the content area depends on the social skills of the participants.

Desirable social skills are <u>not</u> the acquired result of a conditioning process that encourages the herding instinct of "get along, go along." They are instead based upon gaining an <u>awareness</u> of how one's actions and expressions invoke benefits and consequences from others. Those without good social skills are not necessarily either "difficult people" or "independent thinkers;" they may simply be untrained people who are largely

unaware of their influence upon a group. Thus they cannot make the clear choice to either "get along" or to stand up **effectively** for their own promising but unconventional idea. For groups to produce breakthroughs, it is essential that each member retains his or her independence of thought and develops the courage to present new ideas. *It is also necessary for each member to acquire a tolerance that encourages others to be independent and courageous.* From this basis, the group solutions result from the composite of the best that each individual has to offer.

The team's responsibility is real; it is not an exercise.

There is nothing less "real" about a university than any business or institution. Student management teams are not drills or simulations. This is a real class you are working with, and it contains real people who have paid hard-earned money to learn. Tampering with the class is just as serious as tampering with an assembly line in a factory. Changes conceived in industry's quality circles are not implemented as whimsical experiments. The same must be true of student management teams. When an action is proposed, it should be carefully considered and judged as worth the risks and effort. If the team has a real enthusiasm for trying a suggestion, it will usually prove to be worthwhile. If several alternatives are suggested to solve a problem, you should present the best choices and encourage the professor to select one. It is best to start with a small goal which the group feels can be achieved. After one success, you can move much more effectively toward tackling more challenging goals.

Think positive; be positive!

Social skill attributes that are most critical to success are **positive attitudes** and **respect**. Do not assume that either you or your professor will start with the best of social skills. All participants need to look carefully at their own willingness to listen and to take risks. The fact that you gather once a week shows, by your willingness to invest your time (which is not in abundance for either you or professors these days), that all involved are sincere enough to try to make improvements. Be particularly patient at the outset. Always suggest a solution when you raise a problem. Trust-building takes time, and your group will become dynamic when trust is present.

Some professors will have good reason not to implement certain suggestions. Be certain to understand their reasons if they balk at what you feel is a sterling solution to a problem. There may be a good reason, such as the professor's lack of time to implement a particularly complex change immediately. Many of the best ideas produced from student management teams reap the greatest benefits in the semester following the one in which the idea has been proposed. Whatever the reasons, nothing constructive will result if a contest of wills and egos arises out of what should be a means to achieve improvements. Seek to understand rather than to control. Control and real power (the kind that comes from expertise) usually will come as result of understanding; the reverse is never true.

Like you, professors respond best to encouragement.

Professors are humans, and <u>just like you</u> they are inspired to do better by positive reinforcement. Some professors go for months, even years, without hearing a positive word from students or their administration — small wonder that "burnout" is such a well-known term among professors! If a professor gives a particularly outstanding lecture, does a good job in getting a difficult point across, maintains special office hours to help students through difficult sections of the course, that is **your golden opportunity** at the meeting of the management teams to help insure that he or she keeps up that performance by telling the professor that what he or she did well is appreciated. Students sometimes say, "I pay that person's salary with my tuition!" Truly, you do pay a part of the professor's salary (in reality, taxpayers or private foundations usually pay about 50% of the total cost), and just like any manager, **if you fail to give your employees adequate praise and encouragement they will either leave you or they will cut back in their performance.** No one "improves" through abuse and neglect - whether they be your colleagues, your employees, your children, or your professors. A word of praise or encouragement is one of the best investments you can make to assure that the work that the professor will do for you and for your friends will be top quality work. A first-rate manager knows this, and you should start to think of yourselves as first-rate managers of your teaching and learning environment, not mere "victims of the system."

Avoid these Pitfalls!

About half of the quality circles (QC's) in American industry still fail because of pitfalls. The following list are the main reasons they fail, and these lessons in failure can be applied to student management teams. We have added notes below each that explain how the pitfall may be avoided in your teams. If you forget the list, simply remember two words: ***RESPECT*** and ***SINCERITY.*** Most failures below can be attributed to lack of one or the other.

•lack of management support

If a professor doesn't want to participate in a student management team, it is a mistake for a chair or administrator to force the person into the situation. Don't go over the professor's head to "force" him or her to adopt a student management team. Penalty-oriented reactions are too prevalent in universities already. Work with people who are willing. As their student evaluations climb (and they will), those who balk initially may decide to try this voluntarily.

•communication problems

There is no place here for dishonesty or hidden agendas. It is important that everyone understand the issue, the reasons for the action being recommended, and the reason for accepting or rejecting the suggestion.

•management pressure to "volunteer"

Students should not be in these teams against their will. Faculty may ask students, and some of the most effective teams we have experienced have been handpicked by faculty. However, students should be asked, not told, to be on these teams.

•participation becomes ritualistic

If no new issues are brought up and team members attend but don't contribute, conversation eventually digresses into unrelated topics and the meetings become a total waste of time. This may start to show the second or third semester that a team is used in the same course. There will be a point at which you solve the major problems and people will be at a loss for substantial issues. When that happens, your worst problems have been solved and the investment of more time and effort may no longer be worth the returns.

•use it to air personal grievances

As a student, you probably know of faculty who could really use management teams to help improve their teaching, perhaps because you know them as "bad teachers." Inside, these people really do know that they are in trouble too, and their worst nightmare is a tribunal gathered simply to embarrass them more. Fear of the unknown or low self-esteem may be a barrier that keeps a faculty member "in need" from adopting the student management team approach. If a destructive session occurs, the credibility of your team and perhaps every team on the campus can be destroyed in one event. To prevent this, a rule should be followed that **no complaint can be raised without a concurrent suggestion for improvement.** Once a problem has been defined, don't bring up other problems. Work with *the single issue* until a plan is set to tackle it. One issue solved is an accomplishment; making a list of fifty faults doesn't produce a single change.

•domination by a strong personality; others don't contribute

Rotate the roles of leader and recorder frequently, and assign a role to one group member whose job it is

to insure that everyone contributes an idea or opinion. The team is the management tool, not the individuals within it. If a strong person dominates continually, the team may have to call him or her on it, and it is better that another student do this service rather than forcing the professor to be "the heavy." If necessary, do a round-table poll that assures that all members of the team have contributed. Be sure that all members' suggestions are heard, considered, and credited.

•recommendations not implemented — the group becomes frustrated, and management appears insincere

Sometimes the case exists where you have done your work, have defined the problem, and have made constructive suggestions to the faculty member. Make certain that, if recommendations are not implemented, the entire team knows the reasons why. Watch out for recommending so many things that nothing is heard. Decide on a specific area to work on and focus on that until satisfactory results are obtained. If you're simply ignored on several points over several weeks, address your dissatisfaction and ask why nothing is happening. Be certain to give the faculty member every reasonable chance; a faculty member who is aloof or convinced that he or she is too good to improve won't likely be participating in one of these teams. In extreme cases, you may need to raise the issue of dissolving the team during a meeting with the faculty member. There's no need to waste people's time if there's no cooperation and no results are forthcoming.

•improper reward system

Otherwise known as "negative rewards" or "punishing the bearer of bad news," this translates (in industry) to reprisals against employees by management for perceived transgressions that occur during a quality circle meeting. Good managers know better than to try to hurt and intimidate the very people who are volunteering to help them, but not all managers are good. As of this writing, negative rewards have never resulted, but it's probably only a matter of time before a student at some campus feels punished in a course grade because he or she said the wrong thing in a student management team meeting. If this occurs, try to resolve the problem in the management team where the problem originated. If it isn't resolved in one meeting, further team meetings should be placed on hold and the established grievance procedure at your campus should be followed. Student management teams are designed to help improve courses and teaching. They are not suited to handling ethical violations or personal disputes or to serve as counseling therapy sessions. Keep the team from being drawn into such situations.

This works both ways. Students can also impose negative rewards on their professor. They may criticize the professor on student evaluations for actions taken or not taken in team meetings so that the professor becomes worse off for donating the extra time to work with students. If you are meeting twice monthly with your professor, raise the troublesome issues in the context of a difficulty to resolve during the meetings. If you feel, for instance, that the professor is overly critical of students' suggestions, explain the specific instance that this occurred so that the professor can have a fair chance to understand the problem and do something about it. Stewing in silence and then frying a professor on an evaluation after he or she cannot make changes is dishing out of negative rewards from your side. This is just as unproductive and unfair as a professor unfairly punishing a student with a bad grade.

What to Expect

Most problems you'll confront will fall under the category of communication. The problems can come, as you are aware, from a professor's unclear lecture, unclear or incomplete handouts, indecipherable writing, difficult accent in speech, or unclear expectations. The other half of the communication problem comes from students. Lack of class discussion, lack of questions, lack of students going to see the professor in office hours, lack of honest preparation in assignments and skipping classes are all common traits that contribute to bad communication. When you serve on a student management team, you may realize for the first time, the variety of ways in which students cause problems for themselves. At all times, try to find a positive, innovative solution that maintains the good atmosphere of the class.

The following tabulation is a response of what 10 student management teams in one semester found to be problems in their classes, how they solved them and how they felt about serving in a student management team. It may tell you what to expect, and serve as a resource of possible solutions. A blank questionnaire follows this tabulation. Consider using it once for a team discussion before the team disbands and you complete a final questionnaire (your team may wish to devise its own survey instrument).

Results of the Student Management Team Survey in Fall, 1990

compiled by professors Russ Burgett, Mary Dalles, Tom Goltry, Nick Johansen, Steve Kleisath, John Krogman, Ed Nuhfer, Sue Price, John Simonson and Kathy Winz

1) Do you feel the management team caused actual improvements to be made in your class?

Of the responses (34), seven stated that the improvements made would be evident next semester, spring of 1991. Twenty-seven respondents stated that the improvements were already obvious during the semester in which the current team was functioning.

2) List the problem areas identified in the management teams, then number those in order of importance from greatest to least. Then, designate each entry in the list with an "S" if you feel the problem was satisfactorily solved or at least improved, with a "U" for those points that you feel were not satisfactorily resolved or an "I" for those points that you feel were completely ignored even when raised as problem areas.

Uses exams effectively for synthesis and understanding course material Solved (14 responses) Unsolved (1)
Course outline Solved (13 responses)
Keeps students informed of progress Solved (9 responses)
Discussion groups Solved (6 responses) Unsolved (2)
Knows if the class is understanding him/her or not Solved (5 responses) Unsolved (1)
Assignments Solved (5 responses)
Knows when students are bored Solved (3 responses) Unsolved (2)

Responses numbering fewer than five total responses were not tabulated for this summary.

3) For those areas marked with an "S" above, briefly describe the solution that was enacted.

Solutions to the various problems occurred in six major areas: clarity and understanding, exams, assignments, student involvement and interaction, textbook choice, and evaluation.

CLARITY AND UNDERSTANDING

Problem with course outline - Solved by formulating an extensive course outline, complete with text chapters, based on instructor's actual presentations.

"Knows if class is understanding him or not" - Suggested a course syllabus that develops more fully the scope of the class and the intentions of the professor.

"Difficulties not in daily classes, but in understanding long -range goals/objectives." - Solved by suggesting course syllabus in outline form to help indicate what concepts go together and by including chapter readings where they fit into the outline of the course.

"Overemphasis on school counseling. Needs broadening of subject matter to agency coun-

selors and other non-academic counselors." - Solved by bringing in guest lecturer/professional who counseled in a community setting.

Class discussions - Solved by encouraging and implementing discussion methods.

Outside help needed for students - Solved by special office hours.

Better understanding of main points needed. - Solved by outlining major points on blackboard. Also by using handouts to complement lectures, particularly overhead transparencies.

Better explanation of cases needed - Re-explanation of cases.

Needed model for case before assigning one - Gave model.

Difficulty with poetry - Teacher explained in more detail

Disorganized lecture - Solved by more consistent structure in lecture.

Hard to understand - Solved when students asked more questions and also when instructor used easier examples.

Messy board work - Tried to start on left, erased more to present single ideas without clutter.

Confusing graphs - Revert to use of a flip chart or overhead transparencies of computer-drafted graphs.

Desire for citations of source material - Citations given

Makes important points at end of class or after bell rings/ these are lost - Instructor consciously tries to catch himself before doing it; students remind instructor when they see instructor falling into the situation.

Lectures too fast - Instructor reads the class and waits to see if students have finished writing. Emphasizes pauses and repetition during lectures.

Asks too difficult questions too soon. - Begins with leading questions.

Spends too much time reviewing - Reduced review time.

EXAMS and GRADING

"Uses exams effectively for synthesis and understanding of course material."

- Changed formats and review procedures to emphasize clear preparation.
- Gave practical take home test assignments.
- Were given review questions from which the actual test questions were chosen.
- Options for exams reviewed and discussed by student management team.
- Provided review sheets, study guides and pretests.
- Tests cover less material.
- Test emphasizes problems similar to those emphasized in class.
- Proposed evening tests to allow for more time.
- Old exam given as study tests.
- Given different types of questions with different point values.
- Created closely spaced and practically oriented take home test assignments.

ASSIGNMENTS

Excessively heavy reading assignment load - Selective reduction

Students don't read the text. - Began giving text assignments which could help a borderline grade.

STUDENT INVOLVEMENT

Uninvolved students - Group work; cooperative learning. Extra credit assignments involving others.

Desire for group work - Initiated group work & cooperative learning.

- active role playing activity - Suggested more of a debate format.

"Knows when students are bored." - Uses activities to teach the course concepts.

Teaching not as good with too many videos & movies.- Reduce or provide open audiovisual lab for students to view these outside class time.

Seating design not appropriate for discussion - Experimentation until a satisfactory arrangement was found. Seating to facilitate class involvement.

Student-to-student conflict - Regrouping; study conflict resolution.

Desire same lab and lecture instructor- Change schedule for future semesters.

EVALUATION

Evaluation of student presentations - Student management team composed an evaluation/critique sheet.

Absences - Extra credit plan to help absences and improve grade. Spot roll call through questioning for credit.

Concern for tough grading scale (93-100 = A

etc.) - Explanation of reasons for this policy.
Writing abstracts in groups encourages "hitchhiking" - Solved by quiz following abstract and use of abstracting as individual project.
Grading of special project presentation and report - List of evaluation criteria provided.
"Keeps students informed of their progress "- Accomplished by new exam procedure, short intervals of these exams.

TEXTBOOK

Textbook - Voted on a new one for future classes. Provided input for a good text.

Communication is usually the most fertile area in which to work to improve student satisfaction. **The largest number of solutions relate to problems with clarity and understanding.** When long-range course goals and objectives were unclear, students in one course suggested and formulated a syllabus in outline form. This was consistent with the intentions of the professor and more in alignment with the day-to-day presentations seen by the students. This syllabus indicated the sequence of material as presented, demonstrated the integration of concepts, and included text chapters as they fit into the outline of the material. In a course in which there was perceived a need to broaden the scope of the subject matter, students suggested bringing in a guest speaker to address the overlooked area. When understanding the content of a lecture was a problem, solutions were diverse. Students began to ask more questions and spend more time in discussion; professors began to write major points on the blackboard, complement the lecture with handouts, or focus on a more consistent lecture structure. Others reduced review time, extended the explanation of especially difficult areas or re-explained them, provided models for assignments, attempted to use simpler examples, and postponed difficult questions until students had at least partially digested the material. When understanding was hampered by visual or audio confusion/profusion, efforts were made to eliminate messy board work, to replace confusing graphs with flip charts of a basic graph or overhead graphs, to slow the pace of the lecture by pauses and repetition, and to make all important lecture points before the final moments of class and certainly before the class bell. One professor began to provide citations for source material. Teams proved particularly helpful to foreign professors with accents. The teams helped these professors with pronunciation and suggested overheads and handouts that contained difficult phonetic terms.

Several proposals to improve exam-taking were successfully implemented. Some faculty used an exam format proposed by a student management team, or varied the point allocation for different types of questions. In classes where exams were problematic, review sheets, study guides, pretests, and study tests were invariably requested, and given. Closely spaced take-home tests replaced, in one case, more traditional classroom exams that had been given infrequently; the new system resulted in additional response, a partial elimination of test anxiety, and a reduction in the amount of material covered per exam.

Relative to assignments, a reading list perceived as too heavy was revised, and in another instance textbook assignments were given to motivate the reading of the text.

To strengthen student involvement and interaction, faculty again used suggestions made by student management teams. Professors initiated group work, assigned extra credit projects intended to attract the uninvolved, and arranged seating to facilitate discussion and interaction. In one class, regrouping successfully eliminated student conflict; in another, finding an effective balance between lecture and films intensified the interactive element. Suggestions to be implemented in future semesters include these: insuring that lab and lecture will be taught by the same professor, and changing a role-playing activity to a debate format.

Student management teams affected several changes in the evaluation process. Two groups composed evaluation critique sheets for presentations and reports. A more frequent exam schedule kept other students better informed of their progress. An extra credit plan was put into place, and in one instance a simple explanation of a tough grading scale (100-93, etc.) was sufficient to soothe student vexation. Once, a pledge that the grading of a particular project would be done differently next time was viewed as a solution.

Regarding textbooks, one class provided input for a change of text; another class voted on a new text for use in future semesters.

4) Would you be willing to participate in this if asked to do so again?

Of thirty-two responses to this question, twenty-eight students answered with an unqualified yes; three, with a qualified yes; and one, with a maybe. There were no naysayers.

Qualifications were the following: "not spring semester," "if given adequate information," and "if there is a clear understanding of the project and if I have enough time." Of the unqualified yeses, most consisted of a pure and simple answer in the affirmative, but one yes was followed by three exclamation points, and two students added encouraging phrases, i.e., "great and long overdue idea" and "great program!" The student who responded with a maybe did not elaborate.

5) Please note any effect that your participation in a management team had on

a) your perception of college teaching

When asked about perception of college teaching, (5A), students in the survey typically responded that college teaching was more difficult than they first thought, that instructors were concerned about course content and learning, and that instructors were perceived as helpful and quite human after all. Examples of responses are

1) It's much tougher than it looks!
2) It appeared that college teaching is a challenge rather than a sit-back and relax job.
3) I appreciate the complexities of pleasing a variety of students more than before.
4) It made me realize that there are people who are concerned about improving the quality of their teaching and the university in general.
5) It made me realize that not all college teachers are simply "going through the motions." Some are very concerned with their students and their students' concerns.
6) Many teachers could benefit from this program. It seems that the teachers are willing to make changes.

There were no responses that might be construed as negative. In fact, responses were enormously flattering to the profession and to the management team concept.

b) your perception of your instructor

Responses to perception of instructor were generally focused around the teacher as a "human being," the teacher as a caring/helpful person, and the willingness of instructors to change or modify course structure or personal behavior. Examples of responses are the following:

1) Very willing to listen and make changes that are needed. Easy to talk to.
2) I realized that he was working with us, and was great about changing the way he taught certain things to better suit our needs.
3) She is very willing to enact any changes that would benefit the class.
4) Our instructor was not satisfied to continue to do things the same way year after year. Even though he is a good instructor, he is concerned with improvement. Unless it is sought actively, improvement will not occur.
5) It did not change my perception of my instructor. The person is very open, flexible, and communicative.
6) Through the management team I really got to know my professor as a person instead of just as an instructor.

There were no negative responses. Some students did indicate that their perceptions of the instructor did not change because of participation in the management teams. They already perceived their instructors as being good communicators and helpful, caring individuals.

Any discussion of the quality of these questions and the nature of responses must take into account the selection of the instructors and courses involved in the pilot study program. Clearly the individual faculty members involved were not "problem" instructors or ill-prepared, autocratic, or non-communicative people. It remains to be seen if the management team experience is effective in altering perceptions of college teaching and faculty/student inter-personal dimensions when applied to very difficult circumstances.

Increased contacts with instructors in small

group or "social" settings obviously are effective in inter-personal dimensions. This is especially true if the students perceive that their ideas and input create action on the part of the instructor. For students who see instructors only in a lecture setting for a very limited number of hours a week, the chance of knowing one another is very remote. The student management teams offer an excellent opportunity to interact in a setting that is task oriented and related to the university experience. This lessens the possibility of merely creating a social interaction in which misinterpretations of friendship are created that may interfere with grading, evaluation, and proper instructor/student role relationships.

c) your perception of the class as a group of students

The most consistent perceptions were the awareness of diverse needs of students as well as the variety of opinions and interests. For many participants, the problems that arise from having to deal with a group with diverse attitudes, not all of them good, were a real awakening! Some team members got an eyeful from the instructor's perspective and it disturbed them. Attitudes of "apathetic," "complaining" "lack of caring" and "lack of maturity" were noted by team members who attempted to stimulate participation and discussion but had less success than they hoped for. Expressions of frustration with the class were essentially absent from more advanced classes and from the small lower-level classes. In small classes (less than 15 students), the positive influence of the team appeared to become adopted by the class, such that the class actually became quasi-members of the team.

d) your perception of the class as an experience for learning content

Many respondents left this entry blank. The most consistent theme among the answers was the recognition that getting involved enhanced overall understanding and communication. In very small classes, this realization spread from the team into the rest of the class. In larger classes, the benefits of involvement were apparently more clear to the members of the management team than to the overall class.

e) your attitudes toward other members

Only one group noted that at times conflicts of interest and conflicts of opinion caused problems. That group was represented through 2 questionnaires (the other two team members having been sent to Saudi Arabia) and it appeared that the conflict was between the two respondents and two absentees. Beyond that exception, attitudes were overwhelmingly positive and respondents praised their group members profusely. Many groups recognized the diversity of opinions and outlooks that were present within their groups, but these were seen as sources of enrichment rather than as reasons for conflict. Comments ranged from "respected their opinions" through "became good friends" with descriptions such as "open," "mature," "great!," "concerned," "camaraderie," "sharing," "positive feelings" being the norm of response. It was obvious that the team members found their colleagues stimulating and supporting.

f) your attitude toward the content area of the class

Some respondents failed to make the subtle distinction between the class in "d" above from the actual subject matter. However, the pattern again displayed was that involvement in helping to enhance teaching of the subject, whether through emphasis on the class or on the instructor's personal attributes, invariably helped develop an interest and good attitude toward the subject. Respondents noted heightened interest and enjoyment, particularly when their suggestions were tried.

g) your awareness in development of social skills

Virtually all the students who participated in the project reported that the experiences strengthened their ability to work with and communicate with others. Many students who did not ordinarily get involved with class participation were asked to join in and found the experience to be personally rewarding.

A number of students also indicated that the group management teams helped to improve their leadership skills as they either were "elected" chair of the group or experienced leadership as responsibilities for leading were rotated. Students found that they had to listen to others, exchange ideas, and in some instances, make compromises to move forward. Several indicated

that they felt that the teamwork emphasized by the management group was much more reflective of how they would have to operate in the "real world" after graduation.

Some teams were functioning as tiny academic communities with friendships and interests being intermingled with concern for learning and for increasing quality of the educational experience. The cooperation in this effort cut through differences that would normally have left these participants in separate social groups. We must include in these separate groups "faculty" and "students" as well as diverse groups of students.

h) your awareness of attitudes toward you by students in the class who were not part of the group

The response to this question fell quite clearly in two areas. First, it appears that when the instructor clearly explained the management team process to the entire class, there was no change in the attitudes by the non-participants towards the participants. In many cases, the non-participants also volunteered or were solicited for suggestions to strengthen the effectiveness of the management team.

In other cases, it appears that the instructor did not clearly explain to the entire class what was happening. Thus the non-participants were suspicious of the management teams as they appeared to be an elite group receiving special attention by the instructor.

The conclusion here is very clear: the instructor should clearly explain the management team process to the entire class. Periodic updates on the team's progress might also be useful. The class members should be encouraged to give their input to the management team at any time and to ask questions if they so desire, thus maximizing the effectiveness of the management team.

i) your attitude toward yourself as a student and learner

The key words used by students were "enlightening," "positive," "awareness," and "attitude." Many felt it was enlightening and very positive. Several students became more aware of what learning should be and felt they became better students because of the management team. Many students were encouraged that they could interact openly and constructively with the professors. The interaction changed attitudes. One student stated, "My attitude toward learning changed drastically." More than one felt the participation helped in all classes. The attitudes of students were positive and encouraging. For many, the participation created a teachable attitude. What an accomplishment!

j) your perception of yourself as empowered to cause constructive, meaningful changes

The responses were powerful! Several students expressed improved self-esteem. They appreciated being asked their opinions. Many felt that the discussions facilitate positive change. As students, they realized they can make a difference if asked for their input. The responders realized the changes should help future students more than they have helped themselves. One word that would describe the students' perception would be "grateful." Many stated, in different ways, "Finally we were asked what we thought!"

k) the instructor

Student respondents often missed the subtle difference between noticing changes in the instructor as opposed to their perceptions of the instructor. Some comments provided here were even more flattering to instructors than those elaborated under 5 b and could be added under that tabulation. However, among those who recognized the difference, a pattern emerged that showed clearly that instructors had changed and their changes were noticed. Key comments noted were "became more aware of students' needs" or "improved his perception of students needs" or "acknowledged our input." There was no doubt that instructors were striving to improve and that the student managers unanimously gave credit in recognition of both the effort and the results.

6) Would you classify yourself as a traditional or non-traditional student? If non-traditional, in what way?

Fourteen of the 40 possible participants classified themselves as "non-traditional" primarily

on the basis of age or being a single parent. A number had dropped out of college several years ago and were now back for a second try. Five additional students never completed their surveys because they were activated and sent to Saudi Arabia before the semester ended. If these individuals are considered "non-traditional" too, then almost half of those who found themselves managers were non-traditional students and were a group with unusual maturity, sense of responsibility and leadership characteristics. One participant dropped out of school during the semester for "personal reasons" without officially notifying the school (and perhaps was on the track toward becoming a future "non-traditional" student).

7) Circle or coin a term that best fits your role when the group met <u>with</u> the instructor

class representative (n=7); consultant (n=10)
colleague (n=14); manager (n=0); other (n=1)

8) Circle or coin a term that best fits your role when the group met <u>without</u> the instructor

class representative (n=7); consultant (n=9)
colleague (n=14); manager (n=0); other (n=1)

In comparing responses on questions 7 and 8, over half of the respondents (18 out of 33) felt their roles changed when the instructor was absent. The trend was generally toward more of a "take charge" role when the instructor was absent. We believe that this underscores the need for meetings both with and without the instructor present. Meetings with the instructor bring guidance and direction; those without promote free discussion.

9) What inspired you to participate in this experiment?

Some 36 individual responses were tabulated. Several questionnaires cited more than one response, (i.e., more than one reason for participating, and one questionnaire was blank) The cited reasons seem to be of three types:

TO HELP the CLASS (42 percent) - Eleven of the 36 respondents indicated that their primary motivation for participating in the experiment was to "improve the course," to "improve teaching methods," or both. Another four students said they wanted to provide "input" or to become "involved."

TO HELP THEMSELVES (33 percent) - Three students said they participated at least partly because of the money, but four said they volunteered primarily because they were "honored" of "flattered" to be asked. Two indicated that they thought the experience would be a beneficial experience, particularly as future teachers. Two said they decided to participate out of "curiosity" and another because it would be "interesting and fun."

REQUIRED PARTICIPATION (25 percent) - Five participants were directly selected by the instructor, and one was selected by lot. Another volunteered because of the instructor's "enthusiasm," and two agreed to participate because of perceived "apathy" of classmates.

10 a) Do you think that management teams are effective means of improving teaching skills?

All but one of the 32 respondents answered "yes," but 10 qualified their responses. The individual answering "no" argued that only the instructor can improve "teaching skills," adding, however, that, "we can give the teacher an idea of what can be improved." Four respondents said something to the effect that the management teams could make a difference only if the instructor is "receptive," or willing to "follow through." Four others pointed out that improved teaching skills require the team and instructor alike to "understand the process," take it "seriously," be "active and involved," and "listen." Two respondents lamented that only the best teachers are likely to opt for the use of management teams.

10 b) Do you think that management teams are effective means of improving course quality?

All but one answered "yes." (One response was too ambiguous to categorize.) Some affirmative answers were qualified, but these qualifications reflect concerns about participants being too autocratic to cooperate.

Four of the students said that management teams are effective means of improving course

quality, provided they are taken "seriously." As one student expressed it, management teams are "***far better than utilizing those silly '10 minute' course evaluations offered at the end of the semester."***

Five of the students made it clear that their management teams did not purport to improve the course *per se* but instead focused on ways of improving teaching skills of the instructor. But all of those five respondents noted that improved teaching skills ought to translate into improved course quality.

The student management team of Deborah Kellogg in 1993 at CU - Denver did a particularly thorough study of outcomes. They discovered that real success is more likely to come from a series of small, incremental changes than as single large transformations. It is important to recognize the value of a series of small improvements often proves to be great.

THE FIRST MEETING

"Breaking the ice" is usually the roughest part of any group endeavor. Corporations often provide special training in group dynamics in order to help quality circles achieve better success. In the Appendix of this handbook, we have provided copies of the handouts which have been given during training sessions to student management teams. In comparing teams, we find that teams that receive instruction do tend to achieve earlier results than do teams which learn by experience, but toward the end of the semester many teams without any training were performing just as well as those with training. Experience in leadership responsibilities among some of the student members of the team seems to be an effective substitute for formal training in stimulating success. We noticed in particular that teams with non-traditional student members who had work or military experience flourished. These people sensed quickly what was needed to keep a team productive rather than simply drifting. Such members soon were able to convey these skills by example so that other members were stimulated to take initiative and responsibility too, rather than simply waiting to be led. Student management teams are not magic; a team that lacks members with initiative will simply drift and will produce minimal results. For this reason, a professor may choose some or all of the team members based upon their displayed initiative. It is important that all members of the group realize the need to bring ideas and to voice suggestions.

Section I of this manual for professors also has some suggestions for the first meeting. For students, the most important way to get benefits from the first meeting is to prepare for it; don't simply show up waiting to be led. Lecture classes may be like that, but management teams cannot be a place where you watch the professor work at the board and copy notes. Some suggestions for preparation follow.

1) What were your prejudices about this class or this instructor before you took it? Obviously, unless you had the instructor before, your early impressions were the second-hand information from others. Think about what these prejudices were and note the extent to which these were verified or refuted by your own experience. If you entered the class with a strong prejudice that was either positive or negative, that should be a point to consider bringing up; the majority of the class may have entered with preconceived ideas about what the class or the instructor is like. Getting from prejudice to reality is a worthwhile goal.

2) What good experiences have you had to date in this class? List a couple and raise these at the meeting. Explain what made them good at the meeting. Don't expect that the teacher will know these were good. He or she can test on the material but cannot know what you perceive helps your learning experience.

3) What has been the most difficult (or exasperating or frustrating) part of the class to date? Explain what made these experiences so difficult at the meeting. Are there any suggestions you could make that would enhance those experiences. If so, write them down. If in talking to other members of the class, they note some common areas of difficulty, make this known at the meeting. Don't expect that the teacher will know these particular areas were difficult. He or she can test on the material but cannot know why you perceive these areas as being difficult or exasperating.

4) At the meeting, make certain that all other members of the team have an opportunity to be heard about the good and difficult experiences.

5) Appoint a student recorder to summarize the listed difficulties and strengths of the course.

6) Define some issues that you may like to work on next meeting without the professor. Set a goal to try to present your first ideas to the professor in two weeks.

OBTAINING FEEDBACK FROM YOUR CLASS

For many years individual faculty have used their own an end-of-class spot checks to investigate students' level of learning and concerns. Some have used "one-minute-papers" and one version of this has been described in publication in the 80's by T. A. Angelo and K. P. Cross.

The student management team of Deborah Kellogg at University of Colorado at Denver developed the following "two-minute paper" for polling their class. It was distributed at the end of each class. The team tallied the results and used the feedback of their class mates. Theirs was one of the more successful teams.

1) What was the most effective aspect of today's class?

2) What was the least effective aspect of today's class?

3) How could today's class have been improved from your viewpoint?

4. On a scale of 1 to 10 (10 being highest), rate today's class as a learning experience.

Student Management Team Survey

QUESTIONS (To be completed at end of the course)

1) Do you feel the management team caused actual improvements to be made in your class?

2) List the problem areas identified in the management teams, then number those in order of importance from greatest to least. Then designate each entry in the list with an "S" if you feel the problem was satisfactorily solved or at least improved, with a "U" for those points which you feel were not satisfactorily resolved or an "I " for those points which you feel were completely ignored even when raised as problem areas.

3) For those areas marked with an "S" above, briefly describe the solution that was enacted.

4) Would you be willing to participate in this if asked to do so again?

5) Please note any effect that your participation in a management team had on

a) your perception of college teaching

b) your perception of your instructor

c) your perception of the class as a group of students

d) your perception of the class as an experience for learning content

e) your attitudes toward other members of the group

f) your attitude toward the content area of the class

g) your awareness in development of social skills

h) your awareness of attitudes toward you by students in the class who were not part of the group

i) your attitude toward yourself as a student and learner

j) your perception of yourself as empowered to cause constructive, meaningful changes

k) the instructor

6) Would you classify yourself as a traditional or non-traditional student?

If non-traditional, in what way?

7) Circle or coin a term that best fits your role when the group met with the instructor

class representative consultant colleague manager

other_____

8) Circle or coin a term that best fits your role when the group met without the instructor

class representative consultant colleague manager

other_____

9) What inspired you to participate in this experiment?

10 a) Do you think that management teams are effective means of improving teaching skills?

10 b) Do you think that management teams are effective means of improving course quality?

11) We are including a chapter in our report titled "Pitfalls and healthy criticisms." This is intended as a resource on difficulties or problems to look out for during the course of a semester. It will be used by new teachers and students who try student management teams for the first time. If you were to contribute a statement or anecdote that would be helpful under this theme, what would it be? (Use back if needed.)

12) This manual is constantly being improved by users. Please note any additions corrections or problems you found. If you wish to submit your manual with comments, a new replacement manual will be given you from CU - Denver's Office of Teaching Effectiveness, Suite 110, UCD (303 556-4915).

APPENDIX A

OUTLINE NOTES - GROUP DYNAMICS

The following sets of pages are notes which are used in short courses on group dynamics. They were compiled from the sources credited below by Donna Perkins of the UW - Platteville Business Administration Department. If the principles in each of these sections are understood, the team will likely be off to a much faster start. The most critical part, the pitfalls and reasons for failure of quality circles is already included pp. 16-19 and p. 30 of the manual. If more training is desired but time to give it is not available, we suggest reading one section a week by the team members.

Davis, James H., 1964, *Group Performance*,: Reading, Mass.: Addison-Wesley, p. 82

Feldman, Daniel C., 1984 "The Development and Enforcement of Group Norms:" *Academy of Management Review*, January 1984, pp. 47-53, as footnoted in Gregory Moorhead and Ricky W. Griffin, *Organizational Behavior*, 2nd ed. Boston: Houghton Mifflin Co., 1989, p. 277.

Gibson, James L., Ivancevich, John M., and James H. Donnelly, Jr., 1985 *Organizations: Behavior, Structure, Processes*,, 5th ed.: Plano, TX: Business Publications, Inc., 1985, pp. 273-277 and pp. 583-585.

Moorhead, Gregory and Griffin, Ricky W., 1989, *Organizational Behavior*, 2nd ed: Boston: Houghton Mifflin Co.,, , 280.

Tuckman, B., and M. Jensen, M., 1977 "Stages of Small Group Development Revisited," *Groups and Organizational Studies*: 2, pp. 419-442.

QUALITY CIRCLES

HISTORY

Quality circles started in the 50's in Japan largely from the efforts of two Americans, W. Edwards Deming and Joseph Juran. The Japanese, concerned about an image of poor quality products and a resultant inability to compete effectively, requested some of our experts to help improve the quality and image of their products. Deming and Juran helped set up a number of different programs to improve quality, with quality control circles becoming one of the most effective, experiencing rapid growth in the 60's and 70's.

In the U.S., quality circles (we dropped "control" from the name when we brought them here to avoid the connotation that employees would be controlled or manipulated by these) became popular in the 70's as we started responding to high quality, low-cost foreign competition. Rapid growth of QC's in the U.S. came in the late 70's and early 80's. There were, however, varying degrees of success. A brief outline of the typical attributes of quality circles and the most frequent reasons for their failures follow.

TYPICAL ATTRIBUTES

QC's are small groups of employees who meet regularly to identify, solve, and implement solutions to work-related problems, generally structured as follows:

- Groups normally have 4-15 members (avg: 8).
- Members are from the same shop or work area.
- Group members have the same supervisor.
- The supervisor is usually, but not always, the leader.
- Participation is voluntary.
- Groups meet once a week away from normal work area.
- Members receive training in QC participation rules, brainstorming techniques, group dynamics and problem solving.
- Circle members choose which problems they will work on.
- Assistance and guidance are available from someone who attends meetings but who isn't part of the circle—a "resource" person.
- The circle presents solutions to management.
- The circle receives recognition as a team.

REASONS FOR FAILURE

It is estimated that half of the quality circles in the U.S. fail, with the reasons tending to be quite consistent:

- Lack of management support
- Communication problems
- Management pressure to "volunteer"
- Ritualistic participation
- Misuse of the circle to air personal grievances
- Domination by a strong personality to the extent that others don't contribute
- Inadequate implementation of recommendations, group frustration, insincere management
- Improper reward system

TRAINING: ROLE FUNCTIONS IN A GROUP

The members of an efficient and productive group must provide for meeting two kinds of needs—what it takes to do the job, and what it takes to strengthen and maintain the group. Specific statements and behaviors may be viewed at a more abstract level than the content or behavior alone, i.e., in terms of how they serve the group needs.

What members do to serve group needs may be called functional roles. Statements and behaviors which tend to make the group inefficient or weak may be called nonfunctional behaviors.

A partial list of the kinds of contributions or the group services which are performed by one or many individuals follows.

TASK ROLES

Task roles are functions required in selecting and carrying out a group task.

1. INITIATING ACTIVITY: proposing solutions; suggesting new ideas, new definitions of the problem, new attack on the problem, or new organization of material.

2. SEEKING INFORMATION: asking for clarification of suggestions; requesting additional information or facts.

3. SEEKING OPINION: looking for an expression of feeling about something from the members; seeking clarification of values, suggestions, or ideas.

4. GIVING INFORMATION: offering facts or generalizations; relating one's own experience to the group problem to illustrate points.

5. GIVING OPINION: stating an opinion or belief concerning a suggestion or one of several suggestions, particularly concerning its value rather than its factual basis.

6. ELABORATING: clarifying; giving examples or developing meanings; trying to envision how a proposal might work if adopted.

7. COORDINATING: showing relationships among various ideas or suggestions; trying to pull ideas and suggestions together; trying to draw together activities of various subgroups or members.

8. SUMMARIZING: pulling together related ideas or suggestions; restating suggestions after the group has discussed them.

9. ARCHIVING: keeping a clear, written record of progress.

GROUP BUILDING AND MAINTENANCE ROLES

Group building and maintenance roles are functions required in strengthening and maintaining group life and activities.

1. ENCOURAGING: being friendly, warm, responsive to others; praising others and their ideas; agreeing with and accepting contributions of others.

2. GATEKEEPING: trying to make it possible for another member to make a contribution to the group by saying, "We haven't heard anything from Jim yet" or suggesting limited talking time for everyone so that all will have a chance to be heard.

3. STANDARD SETTING: expressing standards for the group to use in choosing its content or procedures or in evaluating its decisions; reminding group to avoid decisions which conflict with group standards.

4. FOLLOWING: going along with decisions of the group; thoughtfully accepting ideas of others; serving as audience during group discussion.

5. EXPRESSING GROUP FEELING: summarizing what group feeling is sensed to be; describing reactions of the group to ideas or solutions.

BOTH GROUP TASK AND MAINTENANCE ROLES

1. EVALUATING: submitting group decisions or accomplishments to comparison with group standards; measuring accomplishments against goals.

2. DIAGNOSING: determining sources of difficulties or appropriate steps to take next; analyzing the main blocks to progress.

3. TESTING FOR CONSENSUS: tentatively asking for group opinions in order to find out whether the group is nearing consensus on a decision; sending up trial balloons to test group opinions.

4. MEDIATING: harmonizing; conciliating differences in points of view; making compromise solutions.

5. RELIEVING TENSION: draining off negative feeling by jesting or pouring oil on troubled waters; putting a tense situation in wider context.

NONFUNCTIONAL BEHAVIOR

From time to time, more often perhaps than anyone likes to admit, people behave in nonfunctional ways that do not help and sometimes actually harm the group and the work it is trying to do. Some of the more common types of such nonfunctional behaviors are described below.

1. BEING AGGRESSIVE: working for status by criticizing or blaming others; showing hostility against the group or some individual; deflating the ego or status of others.

2. BLOCKING: interfering with the progress of the group by going off on a tangent; citing personal experiences unrelated to the problem; arguing too much on a point; rejecting ideas without consideration.

3. SELF-CONFESSING: using the group as a sounding board; expressing personal, irrelevant feelings or points of view.

4. COMPETING: vying with others to produce the best idea, talk the most, play the most roles, gain favor with the leader.

5. SEEKING SYMPATHY: trying to induce other group members to be sympathetic to one's problems or misfortunes; deploring one's own situation; disparaging one's own ideas to gain support.

6. SPECIAL PLEADING: introducing or supporting suggestions related to one's own pet concerns or philosophies; lobbying.

7. HORSING AROUND: clowning; joking; mimicking; disrupting the work of the group.

8. SEEKING RECOGNITION: attempting to call attention to one's self by loud or excessive talking, extreme ideas, unusual behavior.

9. WITHDRAWAL: acting indifferent or passive; resorting to excessive formality; daydreaming; doodling; whispering to others; wandering from the subject.

In using a classification such as the one above, people need to guard against the tendency to blame any person (whether themselves or another) who falls into "nonfunctional behavior." It is more useful to regard such behavior as a symptom that all is not well with the group's ability to satisfy individual needs through group-centered activity. People need to be alert to the fact that each person is likely to interpret such behaviors differently. For example, what appears as "blocking" to one person may appear to another as a needed effort to "test feasibility." What appears to be nonfunctional behavior may not necessarily be so, for the content and the group conditions must also be taken into account. There are times when some forms of being aggressive contribute positively by clearing the air and instilling energy into the group.

IMPROVING MEMBER ROLES

Any group is strengthened and able to work more efficiently if its members

- Become more conscious of the role function needed at any given time;
- Become more sensitive to and aware of the degree to which they can help to meet the needs through what they do;
- Undertake self-training to improve their range of role functions and skills in performing them.

TRAINING: GROUP NORMS & COHESIVENESS

NORMS

A norm is a standard of behavior against which the appropriateness of a behavior is judged.

Group norms, then, are standards of behavior shared by group members which regulate the behavior of group members.

Norms serve four purposes:

1. Norms help the group survive. Groups tend to reject deviant behavior that does not contribute to accomplishing group goals or to the survival of the group if it is threatened. Accordingly, a successful group that is not under threat may be more tolerant of deviant behavior.

2. Norms simplify and make more predictable the behaviors expected of group members. Norms mean that members do not have to analyze each behavior and decide on a response. Members can anticipate the actions of others on the basis of group norms. When members do what is expected of them, the group is more likely to be productive and to reach its goals.

3. Norms help the group avoid embarrassing situations. Group members often want to avoid damaging other members' self-images and are likely to avoid certain subjects that might hurt a member's feelings.

4. Norms express the central values of the group and identify the group to others. Certain clothes, mannerisms, or behaviors in particular situations may be a rallying point for members and may signify to others the nature of the group.

COHESIVENESS

Cohesiveness of a group is determined by the strength of the members' desires to remain in the group and their commitment to the group; it is a closeness or commonness of attitude, behavior, and performance. Highly cohesive groups are composed of individuals who are motivated to be together. In general, as cohesiveness increases in work groups, pressure to conform to group norms is more intense, thus the level of conformity increases. This can have positive or negative effects, depending on how group goals match up with those of the whole organization. If a highly cohesive group has the goal of contributing to the good of the organization, it is very likely to be a productive group for that organization. However, if such a group decides on a goal that has little to do with or contradicts organizational goals, the group will probably achieve its own goals, even at the expense of the organization's goals.

An organization, then, wants to nurture highly cohesive groups with high performance norms. Strategies include these:

TO GET HIGH COHESION:

- Put groups together where they can communicate well.
- Put people together who are homogeneous but not so much that you don't get variation—you want some healthy debating.
- Set group apart physically if needed.
- Stimulate competition with other groups.
- Make groups small.
- Reward the group rather than the individual members.
- Build common themes (logo, flag, uniform or team shirt, color, etc.)
- Help individuals identify their needs and goals, and show how the group can satisfy these.
- When the needs are being met, let people know it.
- Allow people to make sacrifices for the group (social credit).

TO GET HIGH PERFORMANCE NORMS:

- Set high standards.
- The leader has to be a high performer.
- Set goals that are high enough to motivate but still be attainable; they should make you stretch, but not beyond capacity.
- Get people committed to the organization's goals (goal congruence).
- Set clear goals.
- Show people they are valued.
- Look for obstacles that might get in the way of high performance, and then eliminate them.
- Emphasize unity and team effort, but temper it with rationality to avoid "groupthink."

TRAINING: STAGES OF GROUP DEVELOPMENT

One model of how groups grow and develop over time consists of four stages through which groups generally proceed: forming, storming, norming, and performing. This model does not claim that all groups proceed through this sequence of stages. Rather, it provides a generalized concept to help us understand the processes by which groups form and develop.

1. *Forming*. In the first stage of development, when group members first come together, emphasis is usually placed on making acquaintances, sharing information, testing each other, and so forth. This stage is referred to as *forming*. Group members attempt to discover which interpersonal behaviors are acceptable or unacceptable in the group. In this process of sensing out the environment, a new member is heavily dependent upon others for providing cues to acceptable behavior.

2. *Storming*. In the second stage of group development, a high degree of intergroup conflict (*storming*) can usually be expected as group members attempt to develop a place for themselves and to influence the development of group norms and roles. Issues are discussed more openly, and efforts are made to clarify group goals.

3. *Norming*. Over time, the group begins to develop a sense of oneness. Here, group norms emerge (*norming*) to guide individual behavior. Group members come to accept fellow members and develop a unity of purpose that binds them.

4. *Performing*. Once group members agree on basic purposes, they set about developing separate roles for the various members. In this final stage, role differentiation emerges to take advantage of task specialization in order to facilitate goal attainment. The group focuses its attention on the task (*performing*).

TRAINING: DECISION MAKING & BRAINSTORMING

DECISION MAKING

Decision making is choosing one alternative from among several. The rational decision-making model outlines a systematic, step-by-step process to making logical decisions:

1. Define the problem(s), both primary and secondary problems.

2. Develop alternative solutions, assessing the pros and cons of each alternative. (Who will it help/hurt? What are its principle goals or objectives? What else may be affected either positively or negatively by it? What are the likely consequences, benefits, and costs?)

3. Choose the best alternative. Identify a contingency plan.

4. Implement the solution.

5. Evaluate and follow-up. (Did the chosen solution solve the problem? Did it create other problems?)

BRAINSTORMING

Brainstorming, a technique made popular in the 1950s, is most often used in the idea-generation phase of decision making and is intended to solve problems. In brainstorming, the group convenes specifically to generate alternatives. The members present ideas and clarify them with brief explanations. Each idea is recorded in full view of all members, usually on a flip chart. To avoid self-censoring, no attempts to evaluate the ideas are allowed. Group members are encouraged to offer any ideas that occur to them, even those that seem too risky or impossible to implement. (The absence of such ideas, in fact, is evidence that the group members are engaging in self-censorship.) In a subsequent session, after the ideas have been recorded and distributed to members for review, the alternatives are evaluated.

The intent of brainstorming is to produce totally new ideas and solutions by stimulating the creativity of group members and encouraging them to build on the contributions of others. Brainstorming does not provide the resolution to the problem, an evaluation scheme, or the decision itself. Instead, it should produce a list of alternatives that is more innovative and comprehensive than one developed by the typically interacting group.

The technique of brainstorming includes a strict series of rules. The purpose of the rules is to promote the generation of ideas while at the same time avoiding the inhibitions of members that are usually caused by face-to-face groups. The basic rules are the following:

- No idea is too ridiculous. Group members are encouraged to state any extreme or outlandish idea.
- Each idea presented belongs to the group, not the person stating it. In this way, it is hoped that group members will utilize and build on the ideas of others.
- No idea can be criticized. The purpose of the session is to generate, not evaluate, ideas.

APPENDIX B

STUDENT MANAGEMENT TEAMS and the ROLE of FACULTY DEVELOPERS and DEPARTMENT CHAIRS

ROLES of DEVELOPERS

In the manual I have deliberately avoided referring faculty or students to the faculty development office, primarily because a large number of colleges who use this manual lack a faculty developer. Some faculty developers have even expressed a fear that student management teams might actually replace them in their jobs in faculty consultation—not likely! Student management teams are a tool to be used in faculty development, not as a means to eliminate faculty developers.

A faculty member can indeed institute a student management team and reap very worthwhile benefits without an outside consultant, but such use of student management teams will result in only spotty, isolated successes across a campus. In order to establish the more desirable support of a larger and stronger teaching and learning community, there is no way that student management teams can produce this without centralized support and coordination, and no place makes more sense to supply this than a faculty development office.

There are many ways in which the faculty developer can use the student management team approach to create or enhance a campus-wide, effective program.

(1) *Establish a successful program that is credible and respected.* This will initially involve informing faculty about the program. The key to success is to start small and gain some knowledge and experience in the process.

I suggest that, as a developer, you select some of your more successful faculty and run a pilot group of five or ten for a semester. Meet with the pilot group at least three times and discuss among yourselves what you have learned. Bring the entire teams together at least once and have the students of each team provide a 5 minute oral report on what they have accomplished, followed by a 5 - minute question and answer session. In essence, you are planting establishing a support community.

When you finally present a workshop to the entire faculty, involve members of your pilot group in making most of the presentations. Include at least one student as a presenter. Let the results speak for themselves; avoid having to sell the program yourself to the faculty.

(2) *The faculty development office is probably the best place for funding student participants if this is at all possible, and supplying resources such as this book to participants.*

(3) *Provide a quality circle training workshop to accelerate the effectiveness of newly formed teams on one date early in the semester*. If you are not experienced in management, ask someone from the management or business program on your campus to do this. Being "certified" in faculty development is no substitute for this particular experience. Enlist outside help from those who have the actual firsthand knowledge.

(4) *Serve as an outside resource person for teams.* Providing resources is one of your strong areas of contribution, especially if you have training in development and know the resources. For instance, if a team recognizes a problem in lack of class participation, you can provide resources that contain simple cooperative learning techniques such as "think - pair - share." Be very conservative when giving advice. Developers who themselves have never gone through a tenure review process "know about" rather than truly "know" the pressures that most faculty have. Any "solution" you provide has to work in accord with the faculty member's personal time constraints. Never take an evaluative position between the faculty member and his or her student team members.

(5) *If you have a Total Quality Management mandate at your campus, coordinate your efforts with that office*. This is an excellent way to involve students in a true TQM broad-based program. There is nothing "Total Quality" about any effort that leaves out students that constitute over 80% of the campus community!

(6) *Be sure to survey the student and faculty participants.* Use the form in this manual or make your own. You will gain invaluable knowledge about the conditions of students, faculty and teaching at your campus. The results merit the same confidentiality as your formative evaluations.

(7) *Build mentoring groups based upon student management teams.* This is a wonderful way to connect faculty in diverse disciplines and build a support network that can forestall, soften, and even eliminate many situations that cause burnout in faculty members.

ROLES of CHAIRS

Chairpersons are often called upon to do mentoring, establish mentors within their departments, or to help with teaching improvement. They also must address complaints made by students about teachers.

If the complaint referred to you is a social problem such as racial or gender insensitivity, or social behavior that cannot be condoned, then a student management team is simply not an option. That problem has to be dealt with in the established manner on your campus for such grievances. However, if the complaint is really about teaching and relating the material to the students, then forming a team may be one of the best recommendations that you can make to a faculty member.

Most problems that arise in classroom teaching come from communication and not from lack of technical expertise or caring. There is no more constructive way to enhance communication than to promote students and faculty talking together to see what is really happening in the classroom. Expect improvements to occur through a series of small gains and changes rather than from single revelations of great magnitude.

Teams provide continuous feedback. Regular formal meetings with the team are analogous to consultation sessions with a faculty colleague or developer. When a professor commits to discussion and reflection every two weeks, plus to doing the work toward actual change, it is hardly surprising when some good results occur. Research also shows that highly rated teachers are distinguished by meaningful interaction with students outside the class. For professors who have created no opportunity for such interaction, team meetings secure some of this. Students hunger to discuss teaching and to have their own concerns recognized and valued by professors. When discussion occurs and positive changes start to result, it becomes an exciting experience for students and a process of renewal for professors. Ongoing support nurtures self-confidence and enthusiasm.

The following examples show the kinds of problems that a team may help address. One engineering professor who wished to know about the attrition of women from engineering drafted a team consisting of four undergraduate women from differing engineering areas. He learned that the women students felt the college atmosphere was "cold"; they needed more encouragement and positive recognition. A foreign professor in business who had low class ratings because of his thick accent asked his team to help him with communication. The team helped with pronunciation, encouraged use of more overhead transparencies and handouts of lecture outlines, and called attention during class to terms that were difficult to understand so that they could be written on the chalkboard. His evaluations improved greatly, and one of the student team members was hired by an interviewer who was impressed by the student's experience in using formal team work to solve a real problem.

When a professor of English found herself in an over-enrolled literature course in a room badly designed for the discussion she had planned, her team investigated several alternative seating arrangements and prepared the room before each class until the arrangement was found that promoted the best class discussion under available conditions. Another professor was troubled by overt hostility to the material he taught in a race and gender course, and particularly by hecklers who sat together in a part of the auditorium. His team simply suggested, "Tell 'em to "Shut up!" He in fact, relayed this messag, after acknowledging the student source for the suggestion. The shock kept the hecklers at bay for about two weeks. When they again started, the instructor's "Shut up!" was echoed from the team members. When the hecklers tried once again, about 80% of the class turned toward the hecklers with a "SHUT UP!" that carried the tone of real disapproval. The class was reclaimed for learning the rest of the term.

Not all departments are nice places to work, and a chair has to know and consider whether a team will be a less threatening place to admit shortcomings and to search for solutions than might be a conference with department peers who will later judge the professor for rank, tenure or salary. The use of student management teams may be a particularly good option to recommend to faculty because these teams promote teaching improvement without being intrusive. Setting up the situation where newly-hired faculty can first polish teaching by working directly with their students is a good way to help a new professor begin his or her career. This action in itself can prevent a lot of future problems.

Confidentiality is important. Your role should be to introduce the concept to your faculty (give out copies of this manual), support the team (if possible with compensation or at least a pizza at a couple of sessions), and thereafter get out of the way. Leave the faculty member and team to work things out among themselves. Student team members should never be queried about progress; the function of the team itself is 100% promotive and 0% evaluative. If this is violated, the teams may become viewed as spy rings for the chair. Evaluation should be kept a separate exercise through established procedures.

APPENDIX C

SIX THINKING HATS—
A role play that gets results (based on work of Edward De Bono)

In deriving a solution to difficult problems, a role play in a management team setting is one of the most powerful methods to use to elicit the highest levels of thinking. A role "gives permission" to bring forth the needed feelings and ideas that a speaker may otherwise feel would be ill-received in a standard meeting setting. Research shows that while people may think rationally, they are nevertheless more apt to act based on their emotional feelings, so it is imperative that all perspectives are brought forth, particularly the emotional, so they are completely visible to the group. Edward de Bono has a unique approach to higher-level thinking that draws forth use of many parts of the brain through the assumption of roles. Below are roles based on the *Six Thinking Hats* model (De Bono, E., 1985, *Six Thinking Hats*: MICA Management Resources Inc., NY, Little, Brown & Co., 207 p.). The boldface phrases below describe the roles/responsibilities, and the statement in quotes that follows is a sample statement that might be issued from such a role in a discussion about whether to use a student management team in class.The next page shows the relationship of De Bono's role play to more widely known models of high level thinking.

White Hat – Neutral and Objective-practical - puts forth only information known
"Research on quality circles shows that they produce improvements and efficiency in manufacturing."

Red Hat – Emotional view – need not be justified - makes feelings visible
"I am afraid that my/our suggestions won't be listened to and taken seriously."

Black Hat – Gloomy and/or negative - always logical "blackness" but never emotional. Characterized by a reason given to support blackness.
"Some suggested changes may not be implemented simply because they are not practical to implement."

Yellow Hat – Optimistic and positive - an action should always be able to be associated with this outlook. Again characterized by a reason for optimism.
"Because quality circles work in manufacturing; a variant of these might work in the classroom."

Green Hat – Creative, new ideas, new approaches, provocation
"Traditionally, students are addressed as underlings or customers. What would happen if they were addressed as our colleagues?"

Blue Hat – Controls, promotes process, sets goals. Uses the contributions from other hats. Usually first role of professor.
"Let’s first list possible solutions to lack of class discussion. Then let’s decide which one to try first for this class and see if our suggestions are listened to and implemented. If implemented, we'll see if they really are practical and viable. "

General Equivalence of Some Models of Adult Thinking © E. B. Nuhfer

Emphases-->	**content-intensive emphasis**		**+ process-intensive emphasis**				**+ self-reflection**	**+ judgment from experience**	
Perry, 1968; 1999 2nd ed.	1. Basic Duality	2. Multiplicity Pre-legitimate	3. Multiplicity Subordinate	4. Relativism Subordinate	5. Contextual Relataivism	6. Commitment Foreseen	7. Initial Commitment	8. Multiple Commitments	9. Resolve
King & Kitchener, 1994	1. Knowledge experienced	2. Experience and authority as source	3. Unclear distinction of evidence from belief	4. Evidence accepted that fits established belief	5. Beliefs justified within context	6. Beliefs justified by comparing evidence and opinion	7. Beliefs justified based on relative value of competing evidence	This area is not a product of cognitive development alone. This is largely the realm described under "Emotional Intelligence" by Goleman, 1995. Actions and decisions are made with sophisticated frameworks of reasoning **plus** a **recognized** influence of an ethical framework, emotions and other affective factors	
Blosser, 1973; 1991	1. Cognitive Memory	2. Convergent Thinking	3. Divergent Thinking & 4. Evaluative Thinking (crude with poor justifications)		4. Evaluative Thinking (with better justifications)		4 Evaluative Thinking (with increasingly sophisticated justification)		
Bloom, 1956	1. Knowledge	2. Comprehension	3. Application 4. Analysis 5. Synthesis and 6. Evaluation (5 & 6 done crudely)		5. Synthesis (done better) 6. Evaluation (done better)		6. Evaluation (done with increasing sophistication)		
Biggs & Collis, 1982 "SOLO"	1. Pre-structural	2. Unistructural	3. Multistructural		4. Relational		5. Extended Abstract		
De Bono, 1985	White Hat (factual)	+ Black Hat, Yellow Hat (advocacy based on facts & evidence)					+ Green Hat (creative thinking)	+ Red Hat (emotional) + Blue Hat (conscious synthesis of all hats)	

The context of De Bono's Six Thinking Hats relative to other models of adult thinking (from Nuhfer, E. B., and Pavelich, M., 2001, Levels of thinking and educational outcomes: National Teaching and Learning Forum, v. 11, n. 1, pp. 5-8). Note that the ability to engage a topic using all six modes of thinking results in thinking at the equivalence of the higher Perry levels.

APPENDIX D

SUMMARY OF PUBLISHED EXPERIENCES WITH STUDENT MANAGEMENT TEAMS

This bibliography is the most thorough compilation to date on student management teams; it is certainly not complete, because the topical literature is not well indexed by any source, including ERIC. If you decide to publish on your own experience with a student management team, use of that term in the title or key word list will help other users find your article. Many academics have used in-class teams for improvement in ventures never intended for publication. Exemplary is Herbert Richtol, dean of the undergraduate college at Rensselaer (Anonymous, 1992). In response to faculty requests for a program that would involve students within a class in helping to improve it, Richtol paid students $100 per semester to meet weekly with their professors to discuss ways to improve the course. This describes the essence of a very well funded student management team program. Langford (1993) also mentions the need to treat students as colleagues rather than as "customers" or "products," which follows the precedent established first with student management teams.

Student management teams originated primarily with faculty who taught in content areas outside of education and together their reports provide considerable testimonial for success (Hirshfield, 1983; 1994 in social studies, Kogut, 1984, in chemistry; [Tom Goltry in theater, Mary Dalles in English, John Simonson, in economics; Steve Kleisath, Deborah Kellogg, Louis Nzegwu and Madonna Perkins, in business; Michael Cortés in public affairs; Russell Burgett and Nicholas Johansen in education; Carl Allsup in race & gender; Katherine Winz in criminal justice, and Edward Nuhfer in geology—all of these served as the basis for Nuhfer and others, 1990-95]; Cottell, 1991, in accounting; Hau, 1991, in statistics; Krogman and Nuhfer, 1991 and Maloney, 1994, in engineering; Price and Nuhfer, 1992, and Price, 1993, in agriculture; Perkins, Simonson and others, 1991, and Perkins and Kleisath, 1992, in business; Cunningham, 1993, 1994; Cunningham and others, 1993, in nursing; Blas, 1994, in computer information technology). The indexing of the topic has been so bad that most of these workers were unaware of each other's research at the time it was performed.

Early investigators reported on individual experiences from one or two of their own classes. The first attempt to systematically study student management teams from a broader perspective came from a University of Wisconsin System Undergraduate Teaching Improvement Grant in 1989 to the University of Wisconsin at Platteville. Results of eleven faculty working in twenty-one classes over the course of a year led to production of the first self-help manual, *A Handbook for Student Management Teams* (Nuhfer and others, 1990-1996). Student management teams thereafter became a standard option for faculty development at Platteville, and later at other institutions. As more faculty used teams, data were collected until the most recent version of the handbook (Nuhfer and others, 1990-2001) is based upon the wisdom accrued from well over 400 teams. Early announcements of the handbook appeared in *Teaching Professor* (Nuhfer, Perkins, Simonson and others, 1991) which has since resulted in procurement of the handbook by about 400 colleges. Workshops were given at a number of campuses as well as at national meetings and conferences (Nuhfer and others, 1991a; 1991b; 1992a; 1992b) and at the University of Colorado at Denver's "Boot Camp for Profs®" programs from 1993 to 2001 where versions of the handbook current at the time of the workshop were distributed. Since about 1996, the handbook has proven to be usable by faculty in the absence of other resources such as workshop training. Some have even used it as the basis from which to launch their own research on the teams (Congram, 1993, 1994; Cunningham, 1993, 1994; Cunningham and others, 1993; Levy, Congram & Peoples, 1994). Another handbook, *LEARN - The Student Quality Team Process for Improving Teaching and Learning Student Quality Team Manual* (Baugher, 1992) has been distributed at about 150 schools (see also Baugher, 1993a, 1993b) and emphasizes use of TQM (total quality management - a derivative of Deming's management method) tools. Users looking for brief, clear explanations of the TQM tools can also find these in "The Seven Old Tools," Appendix A of Sashkin and Kiser (1992).

Faculty awareness has been recently increased through Davis' (1993) mention of student management teams as a means to solicit students' opinions about courses, a brief newsletter article by Elfner (1995), a book chapter (Nuhfer, 1996), Schwartz's (1996) excellent compilation in *Prism* . Angelo's and Cross' (1993) provide a description of a rough variant of SMTs, "classroom assessment quality circles," which is a dangerous variant of a student management team. The danger comes in their recommendation to compensate student members of teams through extra credit points related to grades. Linking grades to participation on student management teams in any way violates the basic precepts of participatory management. It can cripple the credibility of a team through giving it an elitist image. Worse, the

professor who enacts such a practice can be called upon to defend his/her ethics for awarding grades based on performance that is divorced from the mastery of the subject. Grades are measures, not compensation; the two should never be mixed. Student management teams are not a mere classroom assessment technique because student management teams go beyond gathering data to actually evaluating it, providing recommendations for actions and sometimes even assessing the success of remedies. Simple paper surveys such as "Minute Paper" or "Muddiest Point" (Angelo and Cross, 1993], which are normally collected by the professor, can instead be provided to the team. Several student teams, on their own, have discovered the "One Minute Paper" or a close variant as a survey instrument. Angelo and Cross's *Classroom Assessment Techniques* is a good companion volume to use with a student management team.

In most of our work, we have emphasized student management teams as a faculty development tool. More recently, Marie Revak and others (200, 2001) of U. S. Air Force Academy have considered these as very beneficial assessment tools, and they have included SMTs as a "top ten" tool and one of the tools "that work."

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Appendix E: Assessment of Student Management Teams
How to We Know That They Are Effective?

Student management teams are one of the more labor-intensive ways to obtain improvement, and so the question above deserves firm answers. If "people are our most important asset," as is often stated in the working documents of many schools, then the use of peoples' time is of paramount importance. To encourage faculty to divert their time for improvement into any method that has little evidence for producing credible results is at best inept faculty development, and at worst is disrespectful of people.

Early in the development of SMTs at University of Wisconsin at Platteville, the ability to objectively assess the benefits of student management teams was a perplexing problem. Testimonials in themselves are not a particularly good method to assess anything. The placebo effect alone that will accompany doing something different predicts that about 30% of participants will report an improvement whether or not any real improvement took place. It is not possible to have true control groups, because as soon as faculty members learn of a better way to teach, they cannot pretend that they have not learned and then withhold an improvement from another class. If one relies upon measures of students' learning, as measured by performance on tests, then one is confounded with the reality that classes composed of different students will likely yield different measures of learning based upon differences in students alone. We had to be content early on by simply acquiring a list of specific improvements that had been made with a brief explanation of what each particular problem was and how each was remedied. This demand for specifics at least got us a step beyond the testimonials of general feelings that teams were successful. After a decade of experience with these teams, we can report with confidence that they are indeed effective in producing improvements in the teaching competence of faculty, and the supporting evidence comes from several independent observations that converge to the same conclusion.

(1) Evidence from formative evaluations. The best way to measure teaching improvement is to document positive changes in teaching traits that are proven in the review literature as useful to student learning. Such teaching traits are measured in well-designed formative evaluation tools. The best tool we have found began with the research of Hildebrand, M., Wilson, R. C., and Dienst, E. R., 1971, "Evaluating University Teaching:" University of California, Berkeley, Center for Research and Development in Higher Education. The formative survey we use is provided on the following two pages. One may access discussions of many traits identified on the first part of the tool at the web page authored by Barbara Davis at http://teaching.berkeley.edu/compendium/. Most of the first 40 items in Table E1 come from this cited work at Berkeley. These items work particularly well for lecture-discussion kinds of classes. The items 41-60 on Table E1 on our survey were designed for collaborative classrooms at University of Colorado at Denver, and were strongly influenced by the guidelines provided from Johnson, D. W., Johnson, R. T., and Smith, Karl A., 1990, *Active Learning: Cooperation in the College Classroom*: Interaction Book Co.

TABLE E1: SURVEY of CLASSROOM SKILLS - SIDE 1

(1992, with many items in 1-40 used with permission of Ctr. for Research & Development in Higher Ed., U of CA, Berkeley)

This survey has been requested by your instructor at his/her own initiative for the sole purpose of discovering ways to enhance teaching effectiveness. The results of this survey are confidential between the instructor and the CU - Denver Office of Teaching Effectiveness, and they are not a part of the rank, salary and tenure review processes. This form results from research on traits of good teaching practice. All paper surveys have some pitfalls. To obtain data that will lead to positive change, it is important that the data result from issues rather than general feelings. Try to answer each question specifically without bias that arises from your own general feelings about the faculty member or from the faculty member's general reputation. Some questions may not apply to your class. If you do not have first-hand information about a particular question, it is O.K. to leave it blank. An example is question 29. If you have never been to the professor's office for help, you may not know whether or not the professor is actually available. USE THE ANSWER FORM PROVIDED and DO NOT WRITE YOUR NAME OR ID NUMBER ON YOUR ANSWER FORM. You may use pen or pencils to mark the form. We also encourage suggestions for improvement. You may write these in the blank space on the form that contains the words Do not write in this space (we've programmed the scanner so that writing in this space poses no problems in scoring).

Please use the following scale for your response to each item

Very descriptive		Somewhat descriptive		Not at all descriptive
A (1)	B(2)	C(3)	D(4)	E(5)

1. Discusses points of view other than his or her own.
2. Contrasts implications of theories.
3. Discusses recent developments in the field.
4 Gives references for more interesting and involved points
5. Generalizes from examples and specific instances
6. Uses examples and illustrations.
7. Stresses general concepts and ideas.
8. Is well prepared.

9. Explains clearly.
10. Gives lectures that are easy to outline (or provides prepared notes that adequately serve this same purpose).
11. States objectives of each class session.
12. Summarizes to emphasize major points.
13. Is able to clarify or improvise in awkward communication situations.
14. Makes a few major points during lecture rather than many.
15. Appears to know if class is understanding him/her or not.
16. Appears to know when students are bored.
17. Uses a variety of instructional media/resources (films, slides, overheads, guest speakers, etc.).
18. Uses a variety of teaching methods besides lectures (demonstrations, field trips, writing, group work, etc.).

19. Identifies what he or she considers important for purposes of testing.
20. Uses exams effectively for synthesis and understanding of course material.
21. Is fair and impartial in grading exams, quizzes, etc.
22. Keeps students informed of their progress.
23. Has students apply concepts to demonstrate understanding.

24. Encourages class discussion/participation.
25. Invites students to share their knowledge and experiences.
26. Invites questions, discussion or criticism about ideas presented in lecture.
27. Is able to accommodate and relate to students as individuals.
28. Asks questions of students.

29. Is accessible to students outside of class.
30. Has genuine interest in students.
31. Gives personal help to students having difficulty in the course.
32. Has a concern for the quality of teaching and learning.
33. Encourages/motivates students to challenge themselves to do high quality work.

34. Has an interesting style of presentation.
35. Gives interesting and stimulating assignments.
36. Uses a range of gestures and movement.
37. Has a sense of humor.
38. Appears confident.
39. Varies the speed and tone of voice.
40. Is enthusiastic.

(SEE OTHER SIDE!!)

Table E1 (continued) Course Evaluation Small-Group Activities - SIDE 2
(1995, Office of Teaching Effectiveness, University of Colorado at Denver)

The preceding 40 questions on Side 1 were developed primarily through research on traditional lecture classes. If your course utilized small-group activities for a significant amount of total class meetings, please complete the following questions. Do not complete if small group activities were used only rarely. Mode of response is identical to that provided on side 1.

Very descriptive Somewhat descriptive Not at all descriptive
A (1) B(2) C(3) D(4) E(5)

41. Working in small groups made the course more interesting than it would have been with lectures only.
42. Working in small groups provided an improved learning environment for the class.
43. I benefited in content mastery from working with other members of the group.

44. In testing, individuals remained accountable for demonstrating mastery of the material.
45. All members of the group were held responsible by the group for contributing to the group's efforts.

46. Small-group activities were an appropriate way to accomplish the tasks assigned.
47. Sizes of the groups were appropriate to the tasks performed by the groups.
48. Group activities were a good use of class time.

49. Instructor provided credit and/or showed appreciation for contributions of the groups to the class.
50. Instructor built upon groups' accomplishments to make the course more effective.
51. Instructor worked with individual groups.
52. Instructor gave helpful suggestions on how to make small-group work more beneficial.
53. Instructor often facilitated the sharing of a group's accomplishments with the entire class.

54. Students who had difficulty with material were helped during class by fellow group members.
55. Outside of class, fellow group members served as sources for assistance and support for subject mastery.

56. Members entered group activities, from the start, with good social and/or conflict-resolution skills.
57. Members' social and/or conflict-resolution skills in groups improved over the period of the course.
58. Small group activities helped build improved social support for group members.

59. In group learning projects, I could not easily succeed unless other members of my group succeeded.
60. In group projects, members either (a) had assigned role responsibilities or (b) a summary capstone for problem-solving sessions wherein all members reached general agreement on appropriate solutions and solution strategies.

The relative importance of teaching traits has been extremely well researched (Feldman, K. A., 1998, Identifying exemplary teachers and teaching: evidence from student ratings: in *Teaching and Learning in the College Classroom* 2nd ed. , K. A. Feldman and M. B. Paulsen, eds., Needham Heights, MA, Simon & Schuster, pp. 391-414). A summary of the most important traits is provided in Table E2 below.

The most important teaching trait to producing student learning is the teacher's preparation and the subject and encourages discussions with and between students. Thus improving communication clarity and course organization are generally the most important ways to improve any instructor's effectiveness. Based upon surveys printed on pages 32-35 of this manual obtained from nearly 300 SMTs, we find that over 80% of improvements rated by students fall into the category of communication: clarity and understanding. Changes of the type seen in Figure E1 are therefore the most common outcomes of these teams.

Instructional Dimension	% Variation Explained	Importance Shown by Correlation (and rank) with Student Achievement	Importance Shown by Rank with Overall Evaluations
Teacher's preparation; organization of the course	**30 – 35%**	**.57 (1)**	**(6)**
Clarity and understandableness	**25 – 30%**	**.56 (2)**	**(2)**
Perceived outcome or impact of instruction	**15 – 20%**	**.46 (3)**	**(3)**
Teacher's stimulation of interest in the course and its subject matter	**10 – 15%**	**.38 (4)**	**(1)**
Teacher's encouragement of questions, discussion, and openness to opinions of others	**10 – 15%**	**.36 (5)**	**(11)**
Intellectual challenge and encouragement of independent thought (by teacher & course)	**5 – 10%**	**.25 (13)**	**(4)**
Teacher's sensitivity to, and concern with class level and progress	**5 – 10%**	**.30 (10)**	**(5)**

Table E2. Instructional dimensions compared with their ranks of importance in producing satisfaction and producing learning. These reveal similarity but not congruence

the organization of the course, but this is not in itself the most important trait that influences ratings on student evaluations. In terms of the Berkeley compendium, most of the other traits identified as important (in terms of both student learning and student satisfaction) by Feldman fall into the category of communication skills: clear presentation of material, clear conveyance of expectations to students, and fostering an environment that nurtures enthusiasm about

We believe that, if one wants to verify that improvements have been made and what these improvements are, the best way to do so is to run a formative evaluation before a team is constituted, and to run it again later after a team's suggestions have been fully implemented. Often this means running later surveys in later terms.

(2) **Evidence from consistence over time.** Reproducibility is one of the strongest tests of a

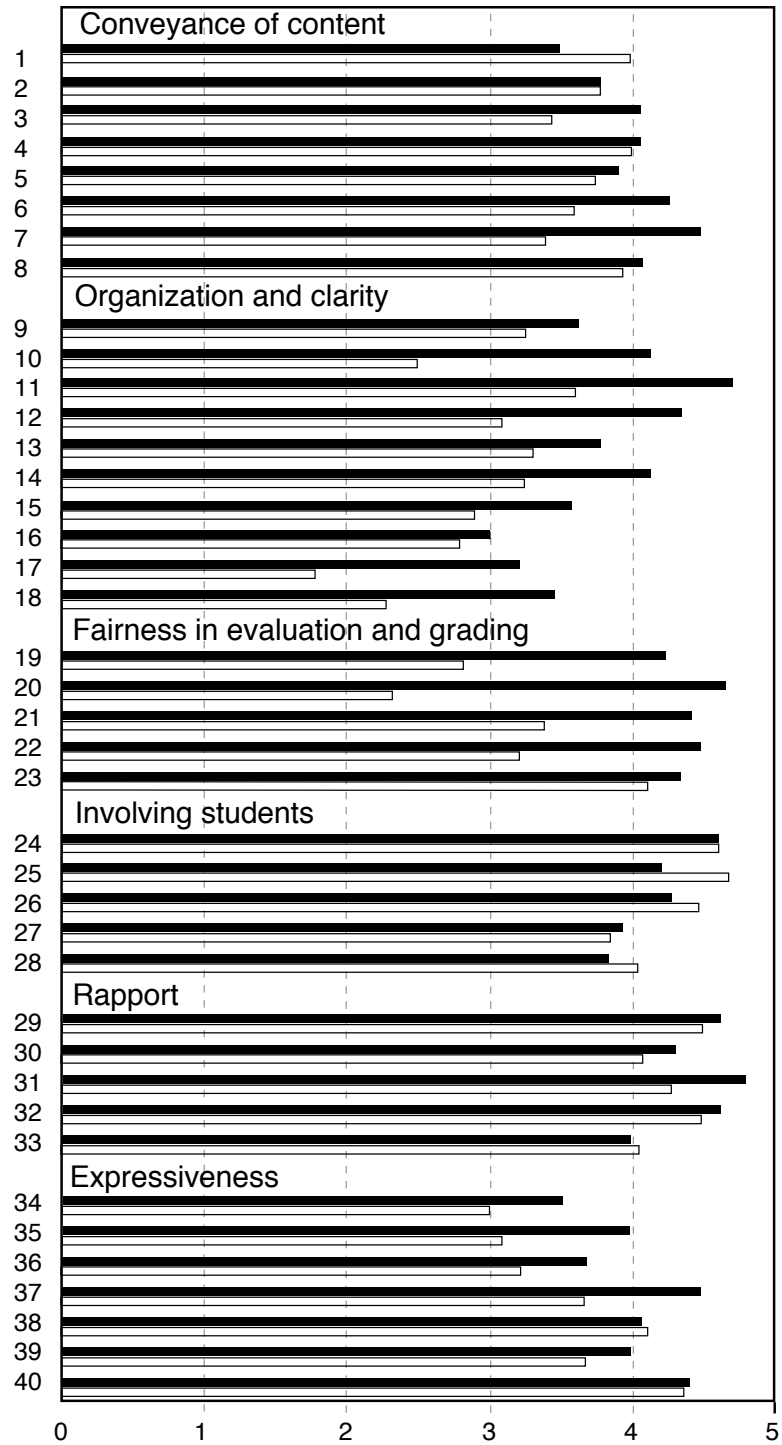

Figure E1. Influence of student management team on teaching. Change produced in formative evaluation (Table E1) given at mid-term in course (white bars) and same survey given in same course the following semester (black bars) after the suggestions from the student management team had been implemented. Instructor and team members gave particular attention to the items within the organization and clarity facet, and results were gains in this facet and in the related facets of fairness in evaluation and grading and expressiveness. Summative rating improved by a full letter grade. (from Nuhfer, E. B., 1996, The place of formative evaluations in assessment and ways to reap their benefits: Journal of Geoscience Education, v. 44, n. 4, pp 385-394.)

hypothesis, and the pattern we have seen in ten years varies little from that established with the first twenty teams we studied in 1991: namely that gains are made in over 93% of teams, and about 80% of the gains agreed upon as improvements by the teams fall into improvements made in the category of organization and clarity. The gains registered in classes are therefore specified, and occur at a far higher rate than could be explained by any placebo effect. The senior author has run the formative tool shown in Table E1 in over 400 classes, and has seen again that about 80% of instructional problems defined on these surveys fit within the category of organization and clarity. Because these categories are confirmed by Feldman's (1998) meta-analyses as the most important traits to student learning and to student satisfaction, we are highly confident that improving these traits through use of student management teams does, in fact, result in better teachers and improved teaching. This supports our hypothesis that student management teams are an effective tool for producing improvement of teaching and learning. If such an observation is made in only a single team, many explanations are possible to explain pre-post survey differences. But when these changes are consistent and verified in a large number of teams, the explanation that the teams are in fact producing improvements emerges as the strongest of the multiple working hypotheses.

(3) Evidence from research on the effectiveness of consultation. Cohen (1980; see Figure E2) is one of the classic key papers that prove that teaching can indeed be improved with efforts toward development. Cohen showed that faculty who give no mid-term formative evaluations score in the 50th percentile on student evaluations. Faculty who give a mid-term evaluation and examine it raise their scores to the 58th percentile. Faculty who give mid-term evaluations and have one consultation about them raise their scores to the 74th percentile. The essence of Cohen's research is that it proves the value of consultation in making improvements in student ratings. Student management teams extend the consultation from a single event to regular consultations at two-week intervals. They produce more consultations, thus more repeated efforts and more planning and accountability.

(4) Evidence from research on how the brain learns. Why should consultations be helpful to helping teachers learn how to teach more effectively? To understand why, we draw from the literature of how the brain functions to learn (Leamnson, R., 1999, *Thinking About Teaching and Learning*: Stylus Pub., 169 p.) and from the literature on cooperative learning. Quite simply, the brain learns by building synapses (connections between neurons) and stabilizing these connections through repeated use. A way to build more synapses and use them more often is to use more senses, so rather than just thinking alone about how to improve one's teaching, a more effective way is to confront information in written form, in graphic form, to discuss it with others, and to formulate a specific plan of focus for improvement. Consultation thus involves

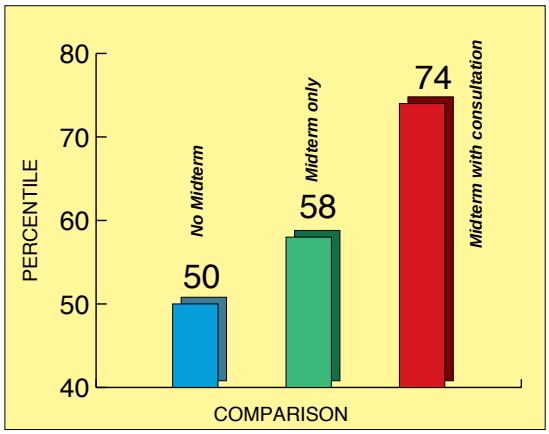

Figure E2. Graphical depiction of results of study by Cohen (1980, Res. in Higher Ed., v. 13, pp. 321-341). Student management teams can provide a large part of the consultation function.

active learning through using the senses of seeing, listening, and the motor skills involved in speaking and writing. We know from the literature on cooperative learning that one obtains about 0.5 standard deviations of improved learning beyond what would occur in a normal lecture-based classroom reinforced by individual study (Springer, L., Stanne, M. E., and Donovan, S. S., 1999, "Effects of small-group learning on undergraduates in science, mathematics, engineering and technology: a meta-analysis:" Review of Educational Research, v. 69, pp 21-51). Gains made in cooperative learning thus also have a basis for why they should occur within the research literature of how the brain learns. Student management teams enable better learning and understanding of how to improve a classroom in much the same way that cooperative learning groups enable better learning of content.

Additional support for the hypothesis that student management teams should produce good results comes from newer literature on thinking that involves emotional intelligence and group intelligence (see Goleman, D., 1997, *Emotional Intelligence*: Bantam, pp. 159-163). More synapses are available in multiple brains than single brains, and if a group can build additional synapses through good communication and good "organizational savvy," the group is indeed "smarter" than any individual brain within it. This fact is probably what accounts for the successes of Edwards Deming and Joseph Juran: they were able to show people how to work together effectively by pooling their brainpower.

Finally, the concept of emotional intelligence helps explain why some groups fail. While a group can be as smart as the total talents, skills and knowledge of the individuals within it, it can also be much "dumber" than this potential if one or more individuals can disrupt the harmony of the group through unethical or adversarial actions. Just as an individual cannot function to his/her potential when upset or depressed, neither can a group. A good understanding of how to work well together often determines how effective a particular team will be. The administrator or leader who purposely disempowers subordinates by keeping them away from the flow of useful information is, in essence, using the authority of a job title to keep contributors weak. The result is an organization that operates at a level of relative stupidity. If a group of professionals has anying of importance to accomplish, it cannot afford to be allowed to operate for long in any such manner. The ability to share information and to "pool brain cells" is invaluable to any professional, and participating on a student management team is a great way to gain practice with the required skills.

Experimental Design. In December of 2002, investigators from the University of Wisconsin at Oshkosh (Lilly, B., and Tippins, M.J., 2002, Enhancing student motivation in marketing classes using student management groups: Journal of Marketing Education, v. 24, n. 3, pp. 254-265) used direct statistical comparisons to deduce that student learning, motivation and affect were improved in classes that used teams, and that the effects were more pronounced in introductory courses. Theirs is the most controlled and rigorous statistical study of SMTs to date.