

# Group Projects S \_ \_ k!

"Group Projects Suck."

This was the opening line of a recent Emerald editorial on the uselessness of student group projects. The editorial prompted several faculty members to contact TEP in outrage and ask, "What are you going to do about this?"

The editorial went on to say that professors loved to require group projects because they made for fewer papers to grade

and fewer lectures to give. (And more time on the golf course, no doubt.) This student didn't buy that group projects had anything to do with the real world. Instead they "force hardworking students to carry the weight for the unmotivated, and they allow students who would normally fail to bask in the glow of other students' work. Most damning of all—the author's claim that "group projects were academic welfare." The poetic end to this editorial flame was, "In the

sea of life, the life jackets have to come off sometime. Let the weak drown.”

Recently, cooperative and collaborative learning approaches have become increasingly popular in higher education for at least two reasons. First, literally hundreds of studies have shown these techniques to be highly effective. And second, both public and private sector employers are demanding that college students graduate with basic skills in creative and critical thinking, team-work and group communication.

More and more successful organizations have small groups at the core of their operations. According to Sun Microsystems' chief technology officer Eric Schmidt: “The proper arrangement at a company is a very large number of very small businesses. The best things were done by very small engineering teams.” (Investor's Business Daily 17 Jan 96 A1)

Clearly, group-work skills are becoming increasingly important and there is no denying that students and faculty have had negative experiences with group learning and group projects. Like any other teaching strategy, positive results depend on careful lesson planning, a thorough knowledge of the students' abilities, and good teaching. I would add two more components to this formula; strategic (rather than random) grouping of students and group skills training.

Expertise in anything requires practice. Cooperative and collaborative teaching strategies are not simply another technique to try once in awhile but rather part of an overall teaching philosophy. Students and teachers must be convinced that working together to construct knowledge is often better than what an individual

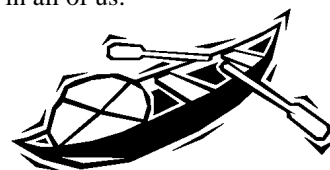
can accomplish on his/her own. They must also be sold on the value of learning how to teach and manage others, how to assume leadership, and how to facilitate group interactions. Students must have confidence in their ability to explore, question, challenge and wrestle with information, ideas and insights. They must value their own thoughts and the thoughts of their fellow students.

Group learning is hard work for everyone. It can be risky and unpredictable. Teachers give up much of a significant amount of control when they use these techniques. Group work can be difficult to monitor and assess. It requires a great deal of initiative, maturity, flexibility and patience on the part of students in order to work successfully in teams and accomplish something worthwhile together.

According to the editorial-writer's view of the real world, “flakes who don't show up for group projects and don't complete their work are fired.” If only it were that simple. How many of our co-workers might have benefitted from some group skills training and team-work practice before they ever got to our offices and departments? How many of them end up getting fired for functioning inadequately or being difficult to work with? Very few. All the more reason to have numerous opportunities to practice teamwork before graduates enter the job market. Candidates who know how to work well in groups, and demonstrate skills in leadership, facilitation and teaching will be at the top of the hiring list.

Most disturbing in these remarks was the closing sentiment -”Let the weak drown.” The world is changing. Hierarchies are giving way to distributed power and leadership. Students are now teaching their teachers how to

navigate and survive in cyberspace. The emphasis is no longer on competition and survival of the fittest, but rather the richness of diversity and the value of a collective effort to garner the best in all of us.



## **Evaluation by Contract**

*by Dr. Bob Lewis, Education Dept., S.T.U.*

It is 9:30 a.m. on a bright October day as students gather in the foyer of Edmund Casey Hall. As each new arrival comes by and is recognized by classmates the question is asked almost casually. “Well, what do you think?” The answers are varied:

“I made my contract.”

“I missed my contract by about 5 questions.”

“At least I have the option of a rewrite.”

“I didn't ask.”

“I got my A.”

“I had nine wrong, so I was borderline. I don't have to rewrite anyway, thank God.”

These comments were among those recorded after a recent exam in a course which is evaluated using student contracts. The students are talking

about where they stand now in their plan to complete a contract made between each of them and their professor. Each is committed to working toward a specific grade, and the comments relate to success in meeting the criteria of their contract. While the statements above reflect some of the advantages of contract grading, they also suggest its limitations. The fact that most students already know their status, only minutes after completion of a major exam, may startle some; but it may not surprise those who have taught or studied under a contract plan. Once levels of performance have been agreed upon, evaluation for grading need not be complicated by the fine discriminations of averaging systems. The rewriting options which are discussed so nonchalantly by students are central to the system, and offer a number of virtues while also introducing a few new vices. That students can talk about their performance without necessarily mentioning specific grades provides a chance to individualize and reduce competition.

I have been using the contract system for over eighteen years and normally offer the traditional grading system as an option in the second semester of his course. Over 95% of my students choose to continue to study under the contract system.

#### ***Essential Elements***

1. An agreement for each student specifying the work to be accomplished, both in quality and quantity. This can be done on a completely individual basis, or professors can offer a "standard" contract, with options to be selected.
2. Specified or negotiated grades to be awarded for completion.
3. Some agreement on how work is treated which does not meet the agreed upon criteria.
4. An agreement on how students may change the contracts.

#### ***Example***

*The easiest way to demonstrate how the system works is to list the "rules" used in the class.*

1. Students are provided a statement of required achievements for each grade, providing a "standard contract." No plus or minus grades are involved.

*Example: The "B" contract requires 3 tests and one position paper all of at least B- quality and one quantity (non-evaluated) activity.*

2. Individually negotiated contracts are possible, but it is

assumed that most students will select a standard contract.

*Example: A student may suggest writing a term paper to substitute for an activity. The Professor may agree to a synthesis of ten readings (thereby maintaining quantity-no evaluation).*

3. Each higher grade level includes the requirements for lower levels, but increases both the quality and the quantity of work necessary.

*Example: The "A" contract requires three exams and two position papers completed to at least A- level and two quantity activities.*

4. The same quality requirement is demanded of all quality graded work. A high grade on one test cannot balance a lower mark on another.

*Example: A student gets the highest grade on Test 1, but must still maintain the A- level on all subsequent papers.*

5. Rewriting is permitted for all quality requirements (tests, essays, presentations) as long as deadlines are met. Papers done after deadlines may not be rewritten if of low quality.

*Example: A student may continue to rewrite tests until competence at the level contracted is reached, or until the course ends.*

6. Negotiation for changes in contracts are permitted, either to raise contracted levels or to lower them.

*Example: A student does very poorly on the first test, and decides to reduce the contract from A to B, thereby reducing the amount of test rewriting, papers, and activities.*

7. At the end of the semester or year, uncompleted contracts are assessed in a manner similar to that used in traditional system. Marks of A- or C+ can be given at this point.

*Example: A student has been unable to successfully reach an A level mastery of a section, but otherwise has fulfilled the contract. An A- would be given.*

8. Students are guaranteed a mark no lower than that contracted, assuming successful completion of all requirements.

*Example: Most students know by the end of the semester what mark they will receive for the class.*

9. The professor reserves the right to raise marks for exemplary work.

*Example: A student contracted for B has reached B level on*

*one test, and otherwise has done work equivalent to an A. Either an A- or B+ would be given.*

### ***Disadvantages and Problems***

The above plan may appear complicated. In practice, once developed and communicated to students, it is actually rather simple. The disadvantages to be found lie in another direction:

First, the system demands more work from the professor. Contracts must be made, re-tests must be scheduled and written for individual students, and careful records must be kept of each person's progress and activities.

Second, the communication of results must be speedy and in a form so that students can decide how to respond when quality work falls short. Some advisement on re-contracting may be necessary, and rewriting procedures must be clear.

Third, the heuristic nature of the system lends itself to higher marks, and a greater work load for most students. Some students do seem to float through the requirements with ease. A few even reduce their study effort and depend on the rewrite options to ensure that they achieve a desired mark. But, most report that they increase study so as to avoid the rewrites. Students tend to try for higher grades than they usually obtain because they see the system as being more responsive to effort, and similar perceptions may increase numbers in courses structured in this manner.

Finally, there is a degree of coercion inherent to the system that may be philosophically repugnant to some students. A few do feel manipulated by the system. Although they could ask to be graded on a more traditional basis, they may also be reluctant to ask for that kind of "special treatment".

### ***Advantages***

The advantages of using contract grading include 1) the effect of the system on study, effort, and morale, 2) the flexibility of the system in allowing a wide variety of activity and evaluation, and 3) the altered methods of measurement the system permits.

#### ***1) Effects on students***

The act of contracting increases the sense of control that students have over their own grade. By making a commitment to work toward a specific grade, and by agreeing to specified outcomes, the student can clearly see what is ahead. No one outcome can remove the goal from the student's grasp, for it is possible to take additional action to

recover from a poor test or hastily written essay. Effort, rather than luck or teacher bias is seen as causing success or failure.

Since the contract system described here avoids averaging, it requires students to maintain high quality work on all content areas. Allowing the professor to recognize work above and beyond the contract provides an incentive for excellence beyond minimal criteria. Still, some students find they cannot put as much effort into one class because work in other classes is more important to their personal goals. Contracting provides an honest response for such situations and permits students to better plan their study time.

The most desirable effect of contracting on students may be its potential for reduction of competition. For some students at least, the motivation of the contest is replaced with the satisfaction of achieving a prized goal. The result of reduced competition seems to be that many more students contract for an A than would have achieved that grade competitively. Although not all students reach their contracted grades, students do not tend to give up when faced with a bad score, resulting in generally higher levels of grades in contracted classes. If it is accepted that rewriting results in additional learning, it must be conceded that higher grades are reflective of generally higher overall learning for a class.

Students seldom feel in contracted classes as if they have been "given" grades by the professor, but rather that they have earned what they receive. This "ownership" is a highly positive result, pointing as it does to subordination of marks to learning. The contract causes the mark to be perceived as a natural outcome of learning rather than a judgement made by a teacher.

#### ***2) System flexibility***

The contract system increases the flexibility of the evaluation system, and provides an excellent check on evaluation tools. Any combination of tasks and performances can be required, and that they can be tailored to student needs or programs. As long as a reasonable equity is maintained, there is no reason why traditional grading cannot exist alongside contracts.

The system described in this article includes numerous non-evaluated components which would be difficult to include within a traditional evaluation scheme. Using contract grading allows teachers to broaden the options offered

students while increasing the pertinence of course requirements.

Class tests have been criticized for their limited reliability and questionable validity. The rewriting option of a contract system provides a hedge against this, and can also help validate and establish the dependability of measuring instruments. Rewriting can offer both student and professor a second look at the competence of the student on the original instrument, or by re-testing with another form of measurement it can provide some evidence of the validity of the first instrument. It is hoped that students will increase their knowledge before rewriting. When this occurs repeatedly the validity of the demand for rewriting is supported, and by extension so is the initial measurement.

### 3) *Altered methods*

Contract grading redirect the effort of the marker. No longer is it necessary to make numerical or grade distinctions between specific papers. Either the paper meets the criteria specified in the contract or it does not.

On objective tests the professor's decision can be as simple as setting a dividing line between those papers which reach A, B, or C level. Since there is no need for making distinctions between papers which fulfill the contract very rapid feedback of results can be achieved, and additional attention can be paid to the areas of deficiency of those who did not reach their contracts. Marking of essay tests or assigned papers can focus on suggestions for improvement. In either case the student receives information which is helpful and points toward greater competence.

### ***Conclusion***

Contract grading has important advantages over more traditional methods. It can be effective in increasing the engagement of students in their own learning, in expanding the options available to professors, and in making the measurement process more supportive of a formative and developmental approach to learning. More professor time is required, the relationship between teacher and student is somewhat altered, and feedback to students must be faster and more diagnostic than in traditional systems. In some areas of study and with certain mixes of students the advantages of the contract system should offer a compelling alternative for university teaching.

## **USE OF INSTRUCTIONAL TECHNOLOGY JUMPS ON COLLEGE CAMPUSES**

*Casey Green, The Claremont Graduate School*

The use of information technology in college courses—including electronic mail, multimedia, CD-ROM, commercial courseware and simulations—grew dramatically this past year, as did the number of students and faculty routinely using the Internet and World Wide Web (WWW). According to the 1995 Campus Computing Survey, the percentage of college courses using e-mail and multimedia resources more than doubled, while the use of computer simulations and commercial courseware increased by more than 50 percent. Further, more than seven million college students and faculty routinely use the Internet and WWW as part of their daily and weekly activities.

“Something very significant is happening,” says Kenneth C. Green, director of the national survey and a visiting scholar at The Claremont Graduate School. “Following several decades of great aspirations and more than a dozen years of significant institutional investments, information technology has emerged as a permanent, respected, and increasingly essential component of the college experience.” Data from the sixth annual Campus Computing Survey,” says Green, “indicate that the use of information technology in instruction is finally moving past the early adopters and breaking into the ranks of mainstream faculty.”

Green reports that these technology experiences go beyond the routine use of word processing and the technical expertise of computer programming; rather, these are technology experiences that extend the content of the curriculum, enrich the classroom discourse, promote communication among class participants, and enhance the learning opportunity.

“The much-discussed ‘technology revolution’—in reality the slow, gradual movement of information technology resources into the curriculum and the classroom experience—is picking up speed,” says Green. “Growing numbers of college students expect a technology component in their

courses; across all disciplines growing numbers of faculty are utilizing technology resources to enhance the content of the curriculum.”

Not surprisingly, the use of the World Wide Web is growing rapidly on college campuses. More than half (55.2 percent) of the institutions participating in the 1995 survey report a WWW home page; still more campuses (25.8 percent) plan to raise an institutional flag in cyberspace during the current academic year. Research universities and other institutions with a well-developed technology infrastructure are most likely to have home pages on the WWW.

Green reports that more than half of all college students and upwards of three-fourths of all faculty have access to the Internet and the WWW. “The campus market currently accounts for more than seven million Internet and WWW users - students, faculty, administrators, and staff who have access to cyberspace,” says Green. “Many routinely use the Internet and WWW in their daily activities.” At growing numbers of colleges and universities across the country, Net access is viewed by faculty and students as a core resource and a basic right, similar to a library card.”

**At growing numbers of colleges and universities across the country, Net access is viewed by faculty and students as a core resource and a basic right, similar to a library card.”**

The 1995 survey data indicate that about six percent of all college courses currently tap into Web re-

sources to support instruction. While the WWW plays an increasingly important role in instruction and scholarship, many colleges and universities also recognize the role of the Web as part of a digital public presence intended for off-campus clientele. Target audiences for these WWW initiatives include prospective students, alumni, news organizations, and potential donors.

As Internet access and Web use grows among the general population, institutional officials are concerned about look, feel, and content issues affecting a campus Web site. Campus officials recognize an institutional Web site as a marketing tool that can provide information and services to important off-campus constituencies.

User support issues now present a major technology challenge for most institutions. Replacing aging equipment, updating obsolete software, and providing training for faculty and students eager to explore the Internet are the top institutional priorities for the 1995 survey respondents.

“Infrastructure helps foster innovation,” says Green. “One key element of the technology infrastructure is a well-developed campus network; a second is the telecommunications system. Other important components include desktop systems with CD-ROM drives, the routine upgrading of hardware and software, multimedia-capable computers in faculty offices and student labs, and technical support to help students, faculty, administrators and staff make effective use of the technology.”

The 1995 Campus Computing survey is based on data provided by computing officials at some 650 two- and four-year colleges and universities across the United States. Participating campuses completed the survey during fall 1995.

## **Experiences with Electronic Communication**

Andy McClelland, a professor at the University of California Davis offers a class called “Insects and Human Affairs” twice a year with an enrollment of about 200 students per session. For years, Andy has used journal writing as an integral part of the course to increase communication between himself and his students.

In the old days he would carry each untidy stack of journals around for a week while reading and making comments on every one, getting through many on his Unitrans bus commutes. He transcribed the more interesting contributions onto his Macintosh and added his own comments. Then he would craft this text into an 8 page weekly newsletter, called “Dear Andy.” In five years “Dear Andy” accumulated nine volumes of about seven issues each. This labor was great fun and enjoyed by all.

Then Andy discovered e-mail.

He found that not only did using the computer as an integral part of his teaching NOT depersonalize his class, it increased his positive interactions with students. Now they submit their journals through e-mail. McClelland responds within 24 hrs of submission. The “Dear Andy” newsletter is now posted weekly to an unmoderated newsgroup. In addition, McClelland posts items gleaned from an entomology listserver and the Internet.

At the first class meeting, students 6

receive a 10-page packet that includes important information about the course, plus a day-by-day class calendar. This material is also posted electronically.

McClelland announces that participation through e-mail is required and that any student unwilling to use a computer should immediately drop the class. He reports that the number of drops was similar to that in previous terms without this requirement.

At the beginning of the term, McClelland provides numerous opportunities for computer training to any students who needs it. The first class assignment is to send him an e-mail message, for which ten participation points were awarded. (Participation points also are given for discussion attendance and participation, journal submission, pop quizzes etc. They form the basis for 25 percent of the course grade.) All student e-mail addresses get placed in an electronic mail alias called "ent111" for the purpose of sending messages to the whole class. He uses class messages to alert the class to recent postings on the newsgroups and for class events and deadlines. This rewards students who frequently check their e-mail.

Some of the class had initial difficulties with e-mail, but they were mostly those who chose not to attend the workshops or who had non-standard or outmoded equipment. Only one student voiced a strong complaint about being required to use computers.

His estimate is that roughly 20 percent of the students thoroughly enjoyed the electronic aspect of the course and about 20 percent disliked it. The remainder were neutral. He found this to be no different from previous "non-electronic" quarters when about the same proportions of students were either enthusiastic or foot-draggers.

McClelland felt that offering intensive workshops in the first week of a class, and demanding immediate and intensive use of the skills learned, is very effective. Students in his class quickly learned the necessary computer skills because they needed to earn points and ultimately a grade. He feel that this is a more effective learning experience than taking a basic computer class as an end in itself.

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### **Some things to consider:**

*Is the use of technology more efficient?* That is, will it increase or decrease a faculty member's workload?

Before technology entered the picture he was retyping and editing both the students' journal entries and his comments for distribution on paper to the rest of the class. After using e-mail technology he only had to type his own comments and then journals were easily distributed to the entire class electronically.

*Will the use of electronic conferencing reduce contact between students and professors?* In McClelland's experience, however, the use of the technology helped him to reach more students and learn more students' names.

*Can we require students to use e-mail?* Before you consider doing this—especially with large classes—think

about our present situation at the UO regarding student access to computers and reliability of servers. Stay informed on these issues. Our computer infrastructure is evolving, and each year it gets better but it is still not perfect. There can be problems and they may effect how well students can complete their electronic assignments.

Remember, too, that more and more faculty are incorporating technology into their teaching. Students could reasonably have more than one electronic assignment to do. Make reasonable demands. Consider designing group assignments with a rotating responsibility to submit them by computer. Consider requiring a limited number of e-mail submissions of which X will be graded. This will cut down on an overload in large classes and help students be more thoughtful and discriminating in their contributions.

## **TEACHERLESS CLASSROOMS**

Ontario's Community colleges, hunting for \$120-million in savings for the next academic year, are deemphasizing the role of the teacher in the learning process. A study prepared for the Colleges' Council of Presidents titled "Learning Centred Education" says educational institutions can cut teaching costs by using CD-ROM courses and computer tutorials to deliver education using support staff rather than teachers to monitor students' progress. (Ottawa Citizen 17 Jan 96 A4)

## Eight Tips On Luring Students to Office Hours

- Tell them office hours are like having access to free private tutoring for the course.
- For GTFs: Tell students to take advantage of your status as an experienced and successful student in this discipline. You know how to read the texts, make sense of the lectures and prepare for the tests.
- Bill your weekly office hours according to some aspect of the course which has been difficult for students. (i.e. “This week in office hours we will be reviewing the.....which as been causing a lot of confusion for people...”)
- Give participation points for coming to office hours.
- Require at least one visit to your office at the beginning of the term. You may or may not give participation credit for this. Make sure this visit is positive and helpful.
- On the first day of class, end five minutes early and walk your class over to your office. This may sound incidental, but for some just knowing where you are will make a difference.
- Always keep your office door open. (It's friendlier and you avoid any possible sexual harassment issues.)



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## INFORMATION vs. KNOWLEDGE

*Neil Fleming of Lincoln University in New Zealand and  
Melissa Poole at the University of Missouri*

The increasing use of technology in higher education has many faculty members thinking about the difference between “information” and “knowledge.” Amidst an increasing flood of data and information, many are wondering how we can hold our position as “knowledge makers” in the continuum of: data-information-knowledge-wisdom-truth.

There is, however, a more important question embedded here, and that is: who are the most important knowledge makers now? Are we assuming that we as teachers “make” the knowledge and then deliver it to students?

Students are the knowledge-makers, constructing meaning from the information they are flooded with every day. These days, the need to make sense of this information is even more critical, since students have access to so much more information and we, as teachers, are no longer the gatekeepers. Rather, as guides on the side, we must be there to coach them, to help them gain critical thinking skills and make constructive meaning from the information they can now so easily access by themselves, today and for a lifetime.