ABSTRACT
        This volume of 30 one- to two-page abstracts from
1993 highlights a variety of innovative approaches to teaching and
learning in the community college. Topics covered in the abstracts
include: (1) role-playing to encourage critical thinking; (2) team
learning techniques to cultivate business skills; (3)
librarian-instructor partnerships to create a bond for student
success; (4) the National Institute for Staff and Organizational
Development's role in faculty development; (5) teaching business law
in a mock courtroom; (6) faculty development for part-time
instructors; (7) a teaching factory which prepares students for
careers in manufacturing; (8) honors philosophy classes that meet in
restaurants; (9) strategies for teaching mathematics as an
international language; (10) the use of peer review and portfolios in
a writing class; (11) teaching communications for technical students;
(12) using student presentations in an economics class to make
technical terminology understandable; (13) assigning students
two-person dialogues between television characters to debunk
microbiology myths; (14) culturally sensitive strategies for teaching
speakers of Black English; (15) having at-risk students assume the
role of literary critics to discuss literature; (16) giving students
essay questions a few days before the exam to improve study skills;
(17) collaboration with college librarians in library assignments;
(18) the use of drills at the beginning of class to encourage
developmental mathematics attendance; (19) cooperative learning in
mathematics; (20) designing an effective advisory committee; (21) a
group approach to multiple choice tests; (22) using pen pals with
basic writing students; (23) an incremental approach to measuring
institutional effectiveness; (24) self-regulated foreign language
learners; (25) the use of a feedback sheet to evaluate class
performance; and (26) publishing student essays. (KP)

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INNOVATION ABSTRACTS

VOLUME XV

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Editor

Suanne D. Roueche

BEST COPY AVAILABLE

Congratulations! You're Leroy Moffitt!: Role-Playing to Bring Out Course Concepts and Encourage Critical Thinking

In even the best of my Composition II classes, students often cannot identify with protagonists and (more often) with antagonists in short fiction. In addition, some of these students are intimidated by more serious fiction.

I found a partial solution to this problem while helping my wife, a local actress, learn a script. She explained to me that an actress must learn everything she can about her character—What does she fear? What are her most prevalent thoughts?—and be able to ground those ideas in the text. Similarly, my professor of fiction writing in college asked each of us students to know everything there was to know about our characters. We were expected to know what they carried in their pockets, where they bought their clothes, what sort of socks they wore, where they ate out, where they shopped, and so on.

❦

Three semesters ago, my students were reading Bobbie Ann Mason's "Shiloh" in Composition II. The first day we discussed this story, the students, though willing to explore, were confused. "Who is the protagonist?" they asked. "What's the central conflict?" They were having a difficult time determining classical ideas of conflict and character in a story slightly more sophisticated than any they had read before.

During the next class I placed them in triad writing groups and handed one of two handouts to each group. One-half of the class was assigned to find out about Leroy Moffitt, and the other half was assigned to find out about Norma Jean Moffitt. Actually, the sheets announced that the students had *become* these characters: "Congratulations! You have now become Norma Jean. In a few minutes you will have a confrontation with Leroy. You'd better find out all you can about yourself. Luckily, you have the story Bobbie Ann Mason wrote about you." The students were then directed to answer the 10-15 questions as a group, first

identifying one student to serve as secretary. After each group had answered all the questions (through the text), they found the other groups assigned the same character and compared notes. By this time, the class had become polarized, each half thinking only the way their character thought. I asked each group to choose a representative for their character.

After the groups had chosen their representatives, each was to ask one of the five questions that their character wanted to ask the other. These questions often centered around the main conflict, and the answers revealed a lot about each character. (If you have thin-walled classrooms, it may be wise to move the class to a more soundproof location for this exercise, as students can become quite vocal when they "become" a character in a story. Ten- to fifteen-minute confrontations seem to work best; they leave the students hungry for more.)

❦

Some students unaccustomed to enjoying literature may respond that it was fun but that they "didn't learn a thing." For this reason and to clarify goals, five or ten minutes after the confrontation we answer the question, "What did we learn?" (This session can teach tolerance and understanding, as it did when we read and role-played Mary Wilkins Freeman's, "A Mistaken Charity," and the students decided that both sides were right.)

I often schedule this exercise for Fridays. Students often ask when we are going to role-play again, enjoy coming to class on Fridays, and search for anything they might use in arguments while reading the assigned stories.

Gregory Byrd, *Instructor, Communications*

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Conquering Western Civilization With a Contest

Probably the most difficult segment of early Western Civilization for most students to understand is the Near (or Middle) East, and of necessity this segment appears at the outset of the course when taught chronologically. College students with little or no background in European history, not to speak of world geography, invariably find themselves mired in academic quicksand when confronted with Sumerians, Akkadians, Babylonians, Chaldeans, Assyrians, Hittites, Phoenicians, Hebrews/Israelites, Hyksos, Medes, Persians, Egyptians, and on and on. The lifestyles, art, culture, and (with only partial exception of the Hebrews) religion of these peoples are all quite foreign to the experiences of first-generation college students who make up the majority of my classes.

It is challenging to bring life and meaning to this segment of the course. In response to this challenge, I have developed an instructional strategy that is simple, yet effective—a debate/contest held during the second week of classes.

The subject of the debate/contest is "Which Civilization Contributed Most Significantly to Our Western Heritage?" Students are seated in parallel rows of desks six across and five deep, and I arbitrarily assign each of the rows an ancient civilization to research: Sumeria, Egypt, Persia, Phoenicia, Israel, and Assyria. After two days of research, a volunteer from each row offers the group's opening statement, and a different student from each group prepares a rebuttal.

On the day of the contest, the first six debaters come before the entire class. A "scribe" from each group is asked to write a few of the group's key points on the board. Two additional student volunteers act as scribes and record the debate. After my explanations of the ground rules for the debate, the individual debaters begin introducing themselves, presenting their opening statements, and arguing their points within a three-minute limit. I act as timekeeper.

After all presentations have been made, groups take a time-out to confer about their rebuttals. I visit with each group, suggesting how they might make their civilization look better—e.g., by "placing into perspective" (or downgrading) some of the so-called achievements of the various other groups. We reassemble for the closing arguments, again each limited to three minutes. Groups present in reverse order. After rebuttals, members of the audience (students who did not volunteer to give opening or closing comments for their groups) vote on the civilization it believes made the most significant contributions (based on the arguments), but no one may vote for

his or her group's civilization. We make a quick tally and announce the ultimate "winners."

The next day, some class time is spent debriefing the debate/contest. Especially important is learning how difficult it is to rank or value various kinds of "contributions" or achievements. For example, while Egyptian pyramids were significant as architectural accomplishments, we must ask if they were as important to our Western heritage as the development of the Phoenician alphabetic system from which our modern alphabet is derived. And, we must ask if the political and imperial achievements of the Persians' world empire was as important as the religious system upon which modern Western Judeo-Christian values are based. Students begin to see that big is not necessarily best, and that "might" does not necessarily make "right," significant points for American students to grasp in an age that sometimes suggests the contrary.

A few days after the debate, the class receives a typed handout, courtesy of the debate "scribes," summarizing key points made in the contest. This handout, in chart form, serves as class notes for the day of the debate.

What is the value of this debate/contest? It transfers the teaching responsibility from the instructor to the students. The debate saves class time; a large body of material and the key points about each civilization are condensed into a manageable form. The exercise gets the entire class involved within a short period of time. (Of course, some students are more involved than others—specifically, the ones who volunteer to assume the roles of debaters.) Students are forced to locate the college library within the first several days of the term. As well, some debaters supply maps, thus building a geography lesson into the presentation.

In short, Western Civilization comes alive early in the course. Some students who have entered the course with negative attitudes toward history find themselves intrigued, if not totally enthralled. The debate/contest provides an excellent kickoff for the course and a useful point of reference throughout the term.

Norman G. Raiford, *Instructor, History*

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Teamwork: Teaching Reality

Educational research has indicated that learning increases as more senses are involved in the learning process. For example, information that is seen and heard is better retained than if it is only heard. On-the-job training is often considered the best method of training because it offers both retention and transference of training. When on-the-job training is applied with peer cross-training to develop multi-skilled team employees, education takes on a more practical, real-life approach. To facilitate an increase in student learning, the curriculum for Principles of Management has been designed to reflect the business organization environment.

Study Manual

A 250-page study manual supplements the text. This manual contains detailed class lecture notes and supplementary materials that normally would be given to the students over the semester. Having a written lecture allows an instructor to focus on experiential and practical application exercises in class instead of repeating textbook material. Approximately one hour each week is spent on lecture material and the remaining two hours on exercises.

Group Work

Each class is divided into groups of seven (depending on class size). Groups are formed using an approach that mirrors the process by which a business organization might be created. Students take a general knowledge test the second day of class; those receiving top grades are designated as group leaders. In choosing group members, leaders must conduct one-on-one interviews with every person in the class. Then, the leaders privately identify, on paper, the six individuals to whom they wish to extend job offers. Students who receive only one offer are automatically placed on the team making the request. Students who receive multiple offers are allowed to choose their team. Every attempt is made to keep the teams equal, so some negotiating may be necessary to placate the whims of both leaders and members. The names of students not receiving a job offer are discussed with the leaders who must choose among them to complete their group rosters. The rosters are not made public until every student is placed on a team.

Examinations

All exams, with the exception of the final, are given as group exams. Six mini-exams are given during the course of the semester over material from the main text. Three general exams are administered over the lecture material. The group exams allow students to discuss all aspects of each answer. It is hoped that students who did not understand concepts discussed in class will have an opportunity to learn by listening and discussing ideas with their peers. This method allows students to learn the material without being penalized. Students who are absent from group exams and any other group activity must make up the grade individually.

The final exam is taken individually, but is open-book and open-note. This approach discourages students from merely memorizing answers for short-term purposes. The final exam consists of short-case situations which must be interpreted by the student using information from the texts. The answers, however, cannot be taken directly from the books. This approach reflects real life, because when they become employees these same students will be expected to use all resources available to them to solve a problem or complete a project.

Projects

The capstone for the course is a corporate research project. The groups examine a selected corporation from many different perspectives: mission, strategy, goals, marketing function, financial performance, management philosophy, international operations, social responsibility, and others essential to the underlying success or failure of business ventures. Students are expected to make a polished, hour-long oral presentation using audiovisuals to emphasize main points. Since much of this information is not readily accessible, students must conduct interviews, analyze primary and secondary sources, and make decisions involving interpretations of limited facts.

Grades

Grades are then categorized: individual (final exam, computer simulation game score); group (mini-exams, general exams, experiential exercises, research project); and peer evaluation. The peer evaluation allows group

members to appraise each other's contributions and is conducted by forced distribution over a number of questions covering a variety of topics. The peer evaluation is an essential component of the learning process because it teaches accountability, a trait required in establishing the concept of total quality management.

This teaching style and strategy is designed to improve learning from a situation that closely resembles a business environment. Seldom do employees work totally on their own; usually they are able to bounce ideas off one another and use any available resource to assist them in doing a complete and competent job. A common complaint from students is that much of what they learn does not mirror what they do in their jobs; they believe many concepts either do not reflect the real world or are just not applicable to their particular situation. This exercise in group dynamics allows for not only a sharing of ideas and viewpoints, but it also contains excellent transference of training techniques that can be adapted readily to the workplace.

Self-managed Work Teams

This transference of training can be increased in highly motivated classes by the creation of self-managed work teams. Teams create their own group mission supported by goals and objectives attained by developing strategies for learning. Each group then works at its own pace in achieving these objectives. Performance appraisal systems are established by the group to show attainment of competencies required for course completion. This class approach, while appearing to be highly ambiguous, often evolves into a very task-oriented situation.

One problem inherent in the traditional lecture style of teaching is that students become dependent on instructors to repeat the textbook in their lectures, thus releasing them from any obligation to read the material. However, this method's success is dependent on each member contributing a fair share to the group effort; each must read the assignment and participate. The method also avoids a common problem with "active" learning activities: the more dependable students do not feel that they must carry other group members on their shoulders.

One way to avoid having the more dependable students carry a heavier burden is to give the mini-tests individually prior to administering them to the groups. Rarely do students outscore their respective teams, a result that can only reinforce the value of group dynamics. The central purpose of this teaching technique is to assist all students in learning as much as they can from as many "teachers" as possible. Each person in the class is a potential resource for knowledge and experience. The challenge is making that information available to every-

one else. It is that pooling of knowledge that keeps us from "reinventing the wheel." As more and more attention is given to groups in the workplace, it becomes counterproductive to focus so much of the attention in college education on developing isolated skills.

A second problem which occurs but is often correctable involves change. Students are accustomed to the lecture style of learning that emphasizes individuality and independence. Some people have difficulty depending on others for their grades. Others, through their experiences, have become loners who are slow to contribute to group information. They truly believe, "If you want something done right, do it yourself." This situation can be corrected once students see the benefit of being involved.

Conclusion

Colleges ideally operate in a dynamic environment where the classroom is the vehicle for change. Based on this hypothesis, group learning is an alternative to the lecture standard. It gives students options, allows them to make choices, and helps them draw conclusions and face consequences. Giving the students choices allows them to maintain some internal control. Giving the students teams forces them to plan and to act as part of a group—much like a business situation.

Russell Kunz, Program Coordinator, Management Development

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INNOVATION ABSTRACTS

Resources, Research, Results— Librarian and Instructor, Partners in Student Success

"You will be required to write a 10-page research paper with a bibliography," commands the instructor at the first class meeting. Hearts stop, stomachs churn, and pages are rustled as panic-stricken students rifle through the course schedule to seek a less-demanding class alternative. "I didn't think we'd have to write a research paper in a general biology class," whispers a wild-eyed freshman to a companion in the next row. As a community college librarian, I will eventually meet many of these distraught and ill-prepared students—usually the week (or day) before the paper is due.

The Sink-or-Swim Approach to Research

Writing across the curriculum has provided new challenges to students and instructors. Instructors who have never required a research paper before are doing so now. Several years ago I gave a research orientation to our football team. (With such enlightened coaches, no wonder we recently won a national championship.) Unfortunately, many well-meaning instructors send their students to the library or LRC (learning resources center) on a "sink-or-swim" mission. Literally "dumped" in the library to perform research, many of these students will go through the motions, spend much more time than necessary gathering information, and probably miss some of the best information on their topics because they lack very basic library research skills. As a result of their frustration, many students will submit mediocre papers and vow to return to the library only if absolutely necessary.

Libraries Can Be Intimidating ... Even for Instructors

Research in today's academic library/LRC can be a positive experience for students when they receive even the most basic research orientation. Online public access catalogs have replaced the card catalog in many libraries, providing research options library users could only dream about 10 years ago. CD-ROM (compact disk-read only memory) electronic periodical indexes make it easy to find up-to-date information on thousands of topics. A highly efficient interlibrary loan system provides access to research materials from thousands of academic and public libraries across the nation. The vast resources of the library/LRC that provide endless research possibilities can also create a significant roadblock to student success. A major research library can be an intimidating place. Even some instructors who do not use our library regularly shy away from the electronic periodical indexes, preferring to use the Readers' Guide to Periodical Literature and other paper indexes, recalling their own student years.

The Instructor and Librarian Team

Several years ago, a Wall Street Journal poll suggested that librarians are among the friendliest, most approachable people in the working world, with New York taxi drivers at the bottom of the scale. Librarians today are very service-oriented and want to help students succeed, but they need your help. Many academic librarians are trained to provide just the kind of basic research orientation students require before beginning a research project. Librarians call this orientation process "bibliographic instruction"—a rather pretentious sounding title. I prefer to call it library research orientation. Many libraries/LRCs provide courses for academic credit like Library Research Skills, an eight-week, one-unit course I teach.

Make the Most of Your Library/LRC
* *Visit your library/LRC.* Discover what services are offered to faculty and what research/reference tools are available to students. And, do not forget to visit your local public library.
* *Introduce yourself to the librarians.* Make a special effort to meet the librarian responsible for library research orientations. You may also wish to speak to the acquisitions/collections librarian about assessing the library collection in your discipline as a professional development project. Find out what system is used to provide a balanced, up-to-date collection in your subject area, and see how you can become a part of this process.
* *Meet the librarian charged with media services and discover what videotapes, films, etc., are available.* Many academic libraries/LRCs have extensive media collections or have access to media materials through consortiums or

rental sources. A selection of those fine PBS programs might be available on your own campus for classroom use.

- *Use the instructor reserve services offered by your library.* If possible, place a copy of your textbook on reserve. We are all aware of the cost of textbooks, and too many students are on the fringe of the safety net provided by financial aid programs. You may also be able to reserve media materials for your classes in the media center.

- *Schedule a library research orientation for each of your classes at the beginning of each term.* Generally, upon request, the librarian will custom design each session to your specifications using examples related to each of your classes. Be certain to accompany your class for each orientation. The class is more attentive when you are present and show enthusiasm about the information presented.

- *Develop a library research assignment with the assistance of a librarian.* Make it an entertaining assignment. A student's first library research experience should be both enjoyable and successful. You might consider developing a scavenger hunt or ask students to research events on the day they were born using *The New York Times* microfilm or broaden the assignment to encompass the adjacent week using magazines like *Time* or *Newsweek*.

- *Consider developing extra-credit library research assignments to challenge your best students.* If you decide not to work with a librarian as you create these extra-tough assignments, please remember to tell your librarian the source of your answers. Communicate with your librarian. We are information specialists—not mind readers. Whenever possible, forward a copy of your assignment to the appropriate librarian. We can best serve your students when we can anticipate their needs.

Your Own Research Needs

The partnership between librarian and instructor goes beyond the classroom and the success of your students in fulfilling research needs. The library/LRC can provide you with information to keep you up-to-date in your academic field. Online database services like ERIC (Educational Resources Information Center) and a multitude of other computerized information services connect even the smallest community college library with millions of resources useful to you in your professional growth. Once identified, many of these resources can be delivered to you through interlibrary loan. For your everyday personal needs, a librarian can even assist you with a variety of consumer resources to help you select your next vehicle. Did you know, for example, that the Ford Explorer utility vehicle is rated equally with the Mazda Navajo, and why?

A Growing Partnership

The librarian and instructor partnership, too often overlooked or taken for granted, can create a strong bond for student success. In spite of the growing use of computers in the world of information retrieval, the overwhelming and growing volume of information to be accessed may make the librarian even more valuable. The librarian and instructor will need to become even closer partners in a joint effort to guide students through the confusing maze of information sources.

Daniel C. Arnsan, *Interim Director, Library/Media Center*

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Acquiring Expertise in Specific Content Areas: Implications for Teaching Novices

For years many models of college teaching, training, and adult education settings were predicated on the assumption that if we only understood expert performance we could teach students who are novices to act and think like experts. We now know the differences between experts and novices in many domains, but this knowledge has also taught us that there is more to helping novices develop a given level of expertise than simply teaching them to mimic expert thoughts and behaviors. Novices can evolve into experts. Throughout this transition they acquire knowledge in a specific domain; develop organized knowledge bases; learn and organize strategies for acquiring, thinking about, and using their knowledge; and develop a mastery orientation toward the domain.

The first section of this abstract will highlight the differences between experts and novices. The second will focus on strategies that teachers can use to facilitate students' transition from being novices to acquiring varying levels of expertise in specific content areas.

What Is an Expert?

There are many characteristics of expertise. Among the most salient for our purposes are:

1. *An expert possesses a great amount of knowledge in his or her domain of expertise.* In many ways, this characteristic is simply a restatement of the commonsense notion that an expert is someone who knows more about something. It is true that an expert has a great deal of knowledge about a particular subject, but this is not enough for effective and efficient performance. For example, suppose two instructors both teach at the same college. Both of them are wonderful—they place all of the announcements and information sent their way in a manila folder, label it, and put it into a filing cabinet in their offices. However, one instructor is more organized than the other, and she files her folders in a logical order. She places admissions information in the admissions section, curriculum information in the curriculum section, and so on. The second instructor, on the other hand, simply places each new folder behind the last one she put in. If a problem arises and they both need to get a set of folders on the curriculum

changes in their area over the past year, who would be more efficient and effective at retrieving this material? The first instructor, of course, because of the organization she imposed on the information she received.

2. *An expert has a well-organized knowledge base.* It is not enough to just hold onto a large amount of information; an expert must also organize that information in such a way that it is readily available for future processing or use. This method of organization also facilitates acquiring new knowledge since it is easier to relate new information to an existing knowledge base. This is why students often find they have an easier time understanding the material when they get to more advanced courses. In the introductory courses they had little organized knowledge that they could use to make sense of the new material, but in advanced courses they have an organized knowledge base from which to draw. Part of creating and using this organized knowledge base relates to students' development of effective and efficient strategies for acquiring new knowledge, organizing it, and recalling it for further reflection or application.

3. *Experts have a well-developed repertoire of strategies for acquiring new knowledge, integrating and organizing their knowledge base, and applying their knowledge and skills in a variety of contexts,* ranging from simple recall to complex problem solving and decision making. It is the domain specificity of these strategies that often is the hallmark of the expert. Most of us can learn more generic strategies, such as how to understand and remember information from textbooks. We can even adapt these strategies to more specific tasks, such as reading a history textbook. But this is not the same as reading the book and generating meaning from it in the same way this would be done by a historian. Historians have a unique way of thinking about history. Physicists use very strategic approaches for defining and then solving physics problems. Part of the reason for these differences and why experts even bother to develop these strategies relates to their motivational orientation to their area of expertise, the fourth major characteristic of expertise.

4. *Experts have a mastery orientation to their domain of expertise.* Experts are not only interested in gaining a reward or in reaching some external performance goal; they also want to truly master the material and use their high level of understanding to press further in developing knowledge in the field and its applications. Most students have varying levels of both performance and mastery goals in specific subject areas. For example, the student who loves psychology and is taking a self-paced modularized course may want an A in the course (a performance goal) but may also want to understand the material as much as possible (a mastery goal). This individual is likely to complete enough modules to earn an A but is also likely to keep going and complete as many extra modules as he or she can until the end of the semester. Another student who is not particularly interested in psychology may be just as motivated to get an A in the course but stops after completing the required number of modules. This student's motivational orientation is more performance-oriented than it is mastery-oriented. Experts may have varying levels of performance goals in particular contexts, but they usually have mastery goals when it comes to their area of expertise. Areas of expertise are usually narrowly defined.

5. *Expertise is usually developed in a narrowly defined domain.* Experts may have a good knowledge base in a broad area, but their true expertise will be in a more narrowly defined domain. For example, an expert airplane mechanic knows about mechanics in general. This expertise may or may not enable her to fix something in the family car, but it would be a tremendous help for fixing the particular jets she has worked on for the Air Force for 20 years.

Implications for Instruction

What are the implications for helping students make the transition from novice to expert? The first implication is that few students really want to make the transition from novice to expert in any given domain. Particularly for those of us who teach introductory courses, few of our students may really want to become masters of the material. Instead, the goals they have for our course are more performance-oriented. One of the ways we can help students increase the level of their motivation in a course is to help them identify what Gretchen Stone calls the *utility value* of a course. Helping students see how the material in our course can be of use to them now or in the future in meeting their personal, social, academic, or occupational goals can help them to be more interested in the material and more willing to understand it (even if not to the level of a student who is truly mastery-ori-

ented). There are several ways to do this, but one of the easiest is to have a class discussion after the course overview. Do not tell the students why they should value the material; have them generate the reasons. It is much more powerful and persuasive. This method can also be used whenever major topics in a course are introduced.

Another implication of this work is that we need to help students establish an adequate knowledge base before we can expect them to develop sophisticated strategies for using their knowledge in complex tasks such as problem solving. However, it is also important to teach students the strategies they need to expand their knowledge base, to organize and integrate its contents, and to access it. It is not uncommon to find instructional materials that present a great deal of information but then students are tested with application and analysis or synthesis questions. The assumption in these materials (or in our classroom presentations) is that if the students know the information, they will also know how to use it.

If we want students to use higher-order processing strategies, then we must explicitly teach them how to use these strategies. Modelling and guided practice with feedback, with materials gradually ranging from simple to more complex, are both very effective methods for doing this. For example, when helping students learn to identify main ideas in literature, you would not start with James Joyce! Using short stories with themes that are relatively easy for your students to relate to would be a far better choice.

Instruction that builds from simple to complex knowledge coupled with processing skills can have a tremendous impact on moving students along the novice to expert continuum—they may not all become experts, but we can certainly have an impact on their level of expertise.

Claire E. Weinstein, *Professor, Educational Psychology*

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Faculty Development, Renewal and Recognition: The NISOD Model

If it is May, it must be time to climb aboard an American Airlines flight—destination Austin, Texas. Each year a thousand or more community college leaders journey to the annual International Conference on Teaching Excellence sponsored by the National Institute for Staff and Organizational Development (NISOD) and the Community College Leadership Program (CCLP) at The University of Texas.

But no, not in 1992 for the faculty and staff of Harford Community College (HCC)! When times are tough, budgets tight, and travel funds frozen, it may not be possible to make the annual pilgrimage to mecca.

During austere times, faculty must dip into its bag of tricks or rely on its wellspring of creativity to find alternative ways to rejuvenate cells, share ideas, have professionally stimulating experiences or, best of all, be rewarded for outstanding performance. For even in tight budget years, professional development and intellectual renewal are necessary and vital to growth. Members of the newly created (and fictitious) Harford Institute for Staff and Organizational Development (HISOD) did just that!

In the spirit and format of the annual NISOD conference, the faculty of HCC put together their own local version of the annual international celebration of teaching excellence. Was it the same? No, but given the alternatives—it was a great day! A great celebration of teaching and excellence! An exciting and wonderful opportunity for Harford's faculty to share with others what they do best and enjoy the most. It was truly a day of professional renewal.

How did it happen, you ask? Several faculty, all NISOD conference alumni, decided that a year without the Austin experience was analogous to having a fajita without a margarita! What could we do? A mini-celebration, in the (University of) Texas tradition, sounded like an exciting alternative—one which could be accomplished with some ingenuity, with limited personal resources and available college resources, i.e., classroom and lab space. Without hesitation, it was full speed ahead!

Before we knew it, two publishers were supporters, several workshop sessions were organized, and a fajita/

margarita lunch was planned. As word spread, other presentation ideas were offered and several selected. Logistics were anticipated and coordinated, invitations extended, tasks assumed, and the anticipation of an exciting and fun day became the talk of the campus.

Something was missing. What was it? The answer was obvious—The Roueches! A telephone call to NISOD solved our problem. With much enthusiasm, Suanne and John offered a pre-recorded welcome to the HCC participants. We were ready for an exciting day of celebration.

The day began with registration and a hospitality session sponsored by Harcourt Brace Jovanovich, Inc. Publishers. Faculty participants were decked out in their finest Texas attire and enthusiastically anticipated the upcoming activities and sessions.

The highlight of the opening session was the welcome. Many of the faculty had attended the NISOD conference in previous years and immediately recognized the familiar tones and Texas accents. The celebration suddenly became official! The celebration of teaching excellence in the Texas tradition was underway!

Sessions and concurrent sessions included topics such as cooperative learning strategies, CD ROM search strategies for faculty and students, videodisk classroom demonstrations, and custom publishing. Other workshops featured hands-on experiences using the Macintosh computer, using computer simulations in and out of the classroom, and enhancing classroom presentations using Harvard Graphics.

Presentations were lively, each emphasized teaching excellence and student achievement, and all were enthusiastically received by participants. Participants, using the computer, created their own Certificates recognizing their efforts toward and interest in teaching excellence. Presenters, in addition, received the coveted "red pepper" award in recognition for their extra contribution to teaching excellence.

Following the morning sessions, faculty organizers prepared lunch featuring a chicken and beef fajita buffet, properly complemented with frozen margaritas. These sizzlin' fixin's stimulated the senses, further creating a real

Austin flavor and atmosphere for the celebration.

The day ended with wine and cheese sponsored by McGraw-Hill, Publishers, country music provided by Club Dance, and good ole' fashioned and stimulating conversation among faculty who are excited, stimulated, and renewed by any idea which might lead to teaching excellence.

Harford's celebration likely will become an annual tradition, a vehicle for showcasing creative and innovative faculty who are leading the way toward teaching excellence. Hopefully, the celebration will stimulate other faculty to join in this quest for excellence while, at the same time, encourage administrators to continue support for these faculty efforts.

The celebration will provide a casual but stimulating forum for faculty to discuss ideas, share experiences, and become aware of the new technologies available to support faculty efforts. And finally, perhaps Harford's celebration will become a dress rehearsal for those faculty who have been selected to make presentations at the biggest fandango of them all—the NISOD International Conference on Teaching Excellence in Austin.

Richard V. Miller, *Professor, Business Administration*

Barbara J. Mull, *Professor, Accounting*

Anita Ellzey, *Associate Professor, Accounting*

For further information, contact Richard V. Miller at Harford Community College, 401 Thomas Run Road, Bel Air, MD 21015.

Celebrate with us!

The 1993 International Conference on Teaching Excellence and Conference of Administrators is scheduled for May 23-26.

Speakers will include Carl Kuttler, Jr., President, St. Petersburg Junior College, and K. Patricia Cross, Professor, University of California at Berkeley. Six pre-conference sessions will be featured, plus special sessions by Wally Cox, College of the Canyons, who will provide instruction in country-and-western dancing. The Conference of Administrators; 1993 NISOD Excellence Awards presentation; Monday-evening Mexican buffet and dance; and tours of Austin, Texas Hill Country, and San Antonio round out the schedule.

For more information, contact Suanne Roueche, Director, NISOD, The University of Texas at Austin, EDB 348, Austin, TX 78712, 512/471-7545.

Pre-Conference Seminars

● **Total Quality Management**—James Hammons, *Professor of Higher Education, University of Arkansas.* This seminar will feature strategies for TQM experimentation and implementation.

● **The Student At-Risk in the Community College**—William Moore, *A. M. Aikin Regents Chair, Community College Leadership Program, The University of Texas at Austin.* Perceptions of social class distinctions are important discriminations on the part of community college faculty; they influence their expectations of students at-risk. Findings from a recent national study will be reported.

● **Meeting the Instructional Needs of Multicultural Students**—Alba Ortiz, *Associate Dean for Academic Affairs and Research;* and James Yates, *Chair, Department of Educational Administration; College of Education; The University of Texas at Austin.* Given the changing demography of the U.S., it is increasingly important that faculty understand linguistic and cultural diversity and that they accommodate this diversity in their classes. This seminar will review basic concepts about language and culture and their implications for the teaching-learning process.

● **Improving Student Motivation**—John E. Roueche, *Sid W. Richardson Regents Chair, Community College Leadership Program, The University of Texas at Austin.* This seminar offers practical classroom strategies and techniques for improving student involvement in learning.

● **Making Access and Curriculum Reform Compatible Goals: A Faculty Perspective**—Uri Treisman, *Professor, Mathematics, The University of Texas at Austin.* This seminar will focus on faculty leadership and faculty-managed programs aimed at strengthening curriculum and creating effective routes into mathematics and science for new students.

● **Strategic Learning/Strategic Teaching: A Model for the 21st Century**—Claire Weinstein, *Professor, Educational Psychology, The University of Texas at Austin.* In order for students to take more responsibility for their own learning, they must *want* to be and they must *know how* to be more self-regulated learners. The nature of strategic learning will be discussed and the implications will be presented.

INNOVATION ABSTRACTS

Court is Now in Session

Business Law is an interesting and vitally important college subject, regardless of a student's major. Unfortunately, college students do not always share my enthusiasm for the subject and often fail to see how what they are learning will ever affect them. On the first day of class, I usually relate the story of the time I negotiated a deal for the car of my dreams (a 1977 convertible). The salesman mentioned that he would replace the damaged top, but our written contract did not include the replacement; the dealer refused to honor the agreement. The students chuckle when I tell them how many times I have kicked myself for not reading the contract before signing it. They also get a glimpse of the importance of business law to our daily decisions.

During the semester, in order to increase student interest and enthusiasm, I require students to make at least one group presentation to the entire class. This project incorporates cooperative learning, communication skills development, and team and self evaluation.

Four students are given a written narrative describing a legal dispute between two parties. I appoint two of the students to act as attorneys for the plaintiff and the other two as attorneys for the defendant. Oftentimes students must represent the side they do not think should win, adding to the realism of the learning experience.

The "attorneys" study the case and applicable legal principles from the text and class discussion as they prepare their cases. The assignment requires them to prepare the best case for their client as well as to anticipate the arguments the opposing "attorneys" will use and be prepared to rebut.

Each case may be answered satisfactorily from the basic legal points outlined in the chapters, yet many students do not stop there. Many venture into the school library looking for books they did not even know existed, such as the *Illinois Revised Statutes* and a collection of law books detailing arguments and findings in past cases.

On the trial date, I begin the proceedings with a bang of the gavel and instructions to the "jury" of classmates. Students make opening remarks explaining what they intend to prove. Their partners then develop their case by relating the facts to the legal points involved. Many cite prior case law and current statutes which are not found in

the text. They have done their homework enthusiastically and have built strong support for their client's case.

One of the best presentations I have experienced was made by the teams arguing the first case this semester. Both sides were ready and eager. One team dressed professionally and even prepared official-looking placards for the desk in front of them. The required written outline of their argument and planned rebuttals was flawlessly prepared with the name of their "law firm" at the top of their stationery. Both sides effectively used gestures and voice inflection to emphasize points and persuade the "jury." After the defense ended its argument, the effect on the audience was obvious. A student in a later class asked me if it was true that the Business Law class applauded at the conclusion of the case arguments. I did not recall the applause, but word had apparently spread that something was happening in dry old Business Law.

After each case presentation, the learning continues. The jury rates each team of attorneys on a scale of 1 to 10 on effectiveness, organization, clarity, and persuasiveness of their arguments. Each attorney completes an evaluation sheet to rate his/her partner on the basis of cooperation, degree of effort expended in researching, planning, and presenting the case. I do my own rating, and the results compare favorably to the others.

The students seem to profit from this experience. The project promotes skills in critical thinking, research, communication, planning, evaluation of self, and others. Invariably, students moan at the beginning of the semester when I announce that everyone will do this project at least once. By the end of the first round, students seem more eager to participate. One student summed it up well on her evaluation form by stating: "Thanks for a great experience." I am writing this article to bring it full circle as I say to her, "Thank you."

Daniel H. Holt, *Instructor, Business*

For further information, contact the author at Southeastern Illinois College, 3575 College Road, Harrisburg, IL 62946.

Salvation Journal

In an effort to recapture and extend the closeness and camaraderie we have felt on occasional trips to out-of-town conferences, the English faculty at Piedmont Technical College began a department journal.

In the green spiral notebook launched in June 1991, our intent was to free write for 10 or 15 minutes about anything at all (except complaints), then pass the journal on to the next of seven instructors in the rotation. If we didn't want to write when it was our turn, we could pass; the journal, we vowed, would never become a burden. So whether we wrote in it or not, we would try to keep the journal circulating daily so it would come back to us about once a week.

While the goal of weekly entries was rarely realized, the journal has evolved in a way that exceeded expectations. As one instructor wrote on the cover of our second notebook, it became our "Salvation Journal."

We have used the journal to debate issues about education in general and about teaching English specifically. Concerns have included attrition, the dearth of black males in higher education, grading, the role of the advisor, student conferences, peer review, how to teach grammar, how to build a sense of community in the classroom, and the proper role of a teacher as a performer or a facilitator. We have introduced proposals: a collegewide writers group was launched only a few months after we first wrote about it; the possibility of a campus drama group was debated and tabled as a future possibility.

Increasingly, the journal has become a place to share personal struggles. One instructor noted the difficulties of being a new stepmother. Another worried that teaching day and night classes often made her inaccessible to her daughter. When my father died, I found strength by sharing memories of a man I never had appreciated enough. Another instructor, overwhelmed by family death and illness, wrote, "Several things have been going on in my life that take my breath away with their intensity. It's as if I'm in some vortex whirling 'round and 'round with nothing to hold onto." The journal has offered a catharsis for writers, as well as a way for all of us to remain aware of each other's struggles, an awareness often lacking as we juggled our own day-to-day responsibilities. It also has been nice to share our joy about our students' successes, our children's development, even about the beauty of nature and the pleasures of baseball.

And yet the journal always has been much more than a collage of personal highs and lows. As English teachers, we needed to be reminded of the process of writing itself. A common thread in the entries is the feeling that what someone wrote did not measure up to what others had written: "I feel that I've written only stupid things today" or "I've been thinking of how I could write anything as worthwhile and deep and caring and interesting as all of you have, and I've felt intimidated." Those are the feelings our students have, and it helps to remember how insecure we feel on the written page. As one instructor noted, "Teachers need to write with their students, and students need to perceive that their composition teachers suffer through the same anguish and travails they do on umpteen writing assignments each quarter."

While we have tried to avoid complaints, the journal has become a place to address problems and concerns—such issues as low pay (a dialogue finally suspended by the comment, "I can't think of anywhere I'd rather be than here on the front lines with my friends.") and the specter of a six-course teaching load as our college shifted from the quarter to the semester system.

Our journal evolved from initial comments about handwriting and ink color to specific ideas for classroom exercises to philosophical debates to personal effusions to a true writer's journal. It has become something I look forward to receiving. While our system needs some fine tuning (the journal has often gotten "lost" in someone's office for weeks at a time), it offers a chance to know my colleagues in a new way. Increasingly, the word "love" surfaces in the journal as a way to express how much we appreciate and depend on one another. The green notebook, worn and torn, has become a celebration of both our distinctive voices and our common humanity.

Evelyn Beck, *Instructor, English*

For further information, contact the author at Piedmont Technical College, P. O. Drawer 1467, Greenwood, SC 29648-1467.

Preparing Students for a Nursing Program: A Collaboration

Nursing is a popular major at Brookhaven College. Not surprisingly, a significant number of the students in our pre-college reading classes are there to prepare for entry into the nursing program. Thus, a major challenge for developmental reading instructors is to get students ready for that program, both with a test score high enough for admission and with learning skills adequate to this demanding, competitive program.

Historically, reading programs have offered general instruction, not specifically focusing on any particular course or major. As a result, pre-nursing students (among others) raise pesky questions about the relevance of the reading instruction they are receiving. In fact, the preparatory needs of students go beyond the scope of the typical reading course. Nursing students, especially, need to function independently in a high-pressure program calling for both theoretical and practical manipulation of concepts. In addition, a high degree of stress is often experienced by nursing students and their families. Thus, the psychological preparation of pre-nursing students is also a concern.

The International Center on campus observed that students of English-as-a-second-language, although generally successful in college-level courses following their preparation in ESL courses, had a high failure rate in nursing courses. The International Center director convened a group of faculty from nursing, ESL, counseling, and developmental studies to discuss student success in nursing. A number of useful cooperative ventures resulted, including visits by ESL faculty to clinical classes to see firsthand what communication skills were needed to perform successfully as a nurse. In one of those meetings the idea of offering a reading class especially for pre-nursing majors was born. From the first, it was agreed that the reading class would be composed of equal numbers of ESL students and native speakers to enhance cross-cultural communication and to increase opportunities to learn from one another. We also planned that the students would be enrolled both in a reading course and in a one-hour human development course. The combination seemed to offer greater chances of meeting students' needs than would either course alone. Pilot sections of the paired courses were offered in spring semester 1992.

The Reading Course

A special section of DRO91, the middle level of three pre-college reading courses, was created. The learning objectives from the generic syllabus were used, but the text was a grant-produced series of guides to reading called *Learning to Read Nursing Publications*. Thus, the "relevance" questions were answered by reading chapters from nursing textbooks and articles from nursing periodicals. Inspired by *Innovation Abstracts*, Vol. XIII, No. 16, "Thinking and Working Like a Scientist," several of the usual reading course requirements were modified to be more like nursing course requirements. For example, nursing faculty members volunteered to deliver "mini-lectures" over the topics in the text to lend verisimilitude to note-taking practices. The traditional book reports became two special projects. One was a collaborative effort to review some of our library's nursing periodicals. The other project required a report from a leisure reading list (enthusiastically prepared by one of our librarians), which included titles with some relation to the health fields. For example, Robin Cook's books, despite challenging medical vocabulary, proved so exciting that one student read everything he had written—during the semester! Another student read Oliver Sacks' *The Man Who Mistook His Wife for a Hat*. Tests in the course included "content" questions, requiring students to retain and use concepts from their readings. A comprehensive final exam gave students the experience of reviewing the course content.

The Human Development Course

The Human Development 100 component of the combination was designed to provide the students with a support class while they were enrolled in the reading course. Students filled out a needs assessment questionnaire the first day of class to help in the planning of topics to be covered. The general topics included in the course were stress and time management skills; learning to balance home, work, and school responsibilities; assertive communication skills; campus resources and referral sources; and self-esteem. Two outside speakers were invited to the class. The Brookhaven nursing program coordinator discussed admission requirements, and a

graduating student in nursing told our prospective students what to expect of nursing training. Each class began with an opportunity for students to share their concerns from the past week. Over the semester, the instructors observed students showing more concern and caring for one another, becoming more open about their learning needs, and expressing an increased awareness of the nursing program at Brookhaven College. In the course evaluations, students reported that they were clearer about the requirements for a nursing career, more sure about their choice of a major, and felt that their self-esteem had increased.

Outcomes

Though students often have been taught that collaboration is an academic crime, this collaboration between students and faculty offered significant advantages to the students, to their instructors, and to the institution. Students were developing their reading and learning skills with materials which they found interesting, challenging, and real. Some used this "close encounter" to decide that nursing was not the career they wished to pursue. One woman, whose family had designated her for a nursing career, discovered that she "didn't like the stories" in the text. Realizing that the stories were not an aberration but the actual content of nursing instruction, she decided to look for another health-related career. Another student found the subject matter even more exciting than she had imagined, but she realized that she would not want to start nursing school until after she and her family had made an adjustment to the baby that was on the way. Many found that the course focused their determination and gave their goals a special basis in reality. Study groups were recommended for nursing students, and students were also encouraged to collaborate in working on projects and in studying for tests. The students became unusually cohesive and left the course vowing to stay in touch.

Pre- and post-test results on standardized reading tests were very encouraging. Though students in this class had lower pre-test averages than students in the regular sections of DRO91, their post-test averages were the same as the regular students' on one measure and higher on another.

The reading and human development instructors scheduled a weekly hour of planning time during the semester. In that hour the general schedule, that had been laid out before the semester began, could be fine-tuned to the emerging needs of the students. For example, test anxiety became an issue for several students weeks before a test was scheduled on the syllabus. Because the instructors were in regular contact, the schedule could be rearranged quickly. The combination of reading and human development instruction allowed for a productive division of the instructional load, as well. Both syllabi included considerable emphasis on study skills, so the topics associated with study systems (note-taking, text reading and marking) were put in the reading course, leaving more time for affective areas such as time and stress management in the human development course. Advice from the human development instructors improved the reading teacher's plan for group work on one of the reading projects by suggesting more class time on the task. The weekly collaboration time also functioned as a reward by allowing harried colleagues to learn more about each other's work and to be reflective about their own teaching.

Finally, the institution benefited from this multi-disciplinary collaboration. The use of career-linked materials in the reading class piqued the interest of other reading instructors in similar projects with other tech/occ programs. A writing course paralleling the reading course and using the nursing publications as spring-boards for writing is in the planning stages. Reporting on student progress in the course provided another opportunity for positive interaction among developmental faculty, counselors, International Center staff, and nursing faculty. If using collaboration to provide professional growth for instructors, to excite students about learning, and to bring busy colleagues from all over the campus together is an academic crime, then there are many of us at Brookhaven who plan to be "repeat offenders."

Walter Bumphus, *President*

Ann Faulkner, *Instructor, Reading*

Dianne Horton, *Instructor, Human Development*

Sylvia Gray, *Instructor, Human Development*

Jennifer Wimbish, *Director of Counseling*

For further information, contact Ann Faulkner at Brookhaven College, 3939 Valley View, Farmers Branch, TX 75244.

Including Adjunct Instructors in Instructional Improvement

Part-time instructors have long been an important part of the community college work force; they compose 50-60% of our community college faculty nationwide. Each day and night of instruction, millions of students judge community colleges on the basis of the performance of adjunct instructors. Many night students never encounter a full-time instructor. Nevertheless, the faculty development needs of adjunct instructors often have been slighted in comparison to their full-time counterparts.

In 1989, College of the Canyons decided to design a program of faculty development specifically for adjunct instructors, the Associate Program. The program was designed to address four ongoing problems: (1) a weak sense of connection and commitment to the institution for most part-time faculty, (2) very little interaction between part-time faculty and other faculty members, (3) a dearth of opportunities for faculty development for part-time faculty, and (4) an absence of incentives and rewards for pursuing professional improvement.

The Associate Program leads to the designation of adjunct instructors as "Associates" and consequently to an increase in pay. The program has three phases. The first phase is the completion of an *Instructional Skills Workshop* (ISW). The ISW is a 24-hour course for instructional improvement and is based on a microteaching approach: instructors actually practice teaching while being videotaped and observed by other faculty. Two facilitators (full-time faculty) and five or six participants (adjunct faculty) compose one workshop. The workshop emphasizes specific, fundamental teaching skills (e.g., planning and preparing for a lesson) and a variety of presentation methods. Each participant must present a series of three 10-minute presentations which are videotaped and reviewed by the group. Each participant assumes the role of a student during the other lessons.

The second phase of the program is an eight-hour *Advanced Teaching Workshop* (ATW). The ATW is designed to provide exposure to teaching topics beyond the basics introduced in the first workshop. The content of the workshop varies and, in part, is based on the requests of participants for additional coverage of specific teaching topics. Faculty have presented workshops on questioning techniques, critical thinking in the classroom, and classroom research. This portion of the program is an opportunity to explore current issues of interest in greater depth.

The final phase in the program is a *Teaching Analysis*. Teachers are urged to explore and experiment with new skills and techniques. The analysis phase presents an opportunity for feedback about real-world applications of those skills and techniques. Participants must choose some specific aspect of their teaching and, in cooperation with a full-time faculty member, analyze its use and effectiveness.

Participants are paid a small stipend for each of the workshops they attend, and Associate Adjuncts are permanently paid at a rate that is ten percent higher than other part-time instructors. The Associate Program has cost the college between four and five thousand dollars a year, principally to pay full-time faculty for conducting workshops and small stipends for part-time faculty who participate. Ten to 15 adjunct instructors participate each year.

Adjunct faculty do not have time to waste. They will participate in development programs only if they see a fairly direct link to teaching improvement. In addition, faculty development for adjunct faculty will not succeed unless sufficient incentives, particularly money and status, are provided for participation. Adjunct faculty are painfully aware of their second-class citizenship in the college community. Faculty development cannot reconcile the many distinctions between the two groups of faculty, but it should create a variety of bridges for faculty members and for the institution.

Russell C. Richardson, *Instructor, Political Science*

For further information contact the author at College of the Canyons, 26455 North Rockwell Canyon Road, Santa Clarita, CA 91355.

Turning a Major Headache Into a Good Experience

If you are never late starting your class, never late returning a set of papers, never late for office hours, read no further. However, for the rest of us, these ideas about how an instructor should deal with the problem of students submitting assignments after the due date may prove useful. Late assignments can be problems:

(a) they attack our vision of the way the world should be,

(b) they add calculation time in the grade book,

(c) they get lost or misplaced, and

(d) they force us to adopt a particular correcting "mode" or mindset if we are to correct fairly.

The easiest approach is to accept no late work. This lets students know where they stand and absolves us from having to make decisions when a student hobbles in on crutches or tells us her or his mother died two days ago or that the car was stolen. (A few years ago I knew a teacher who had a points-off scale for lateness due to funerals: immediate family, so many points off; distant relative, so many more; etc.)

I have taken a number of approaches during the past 35 years, but I always have been vaguely uneasy with them. I knew that I was sometimes late myself; and when my mother died I expected my students to understand. At that moment I realized that my approach was, in fact, a double standard: I expected all students to be on time when in fact I was not always. I identified my reasons for being late as legitimate (and did not expect any penalty from the students) yet saw theirs as illegitimate and deserving of penalty that might teach them better.

I have developed a system which:

(a) requires zero recordkeeping,

(b) costs me no energy,

(c) discourages students from lying,

(d) encourages students to turn work in on time, and

(e) suggests a recognition of mutual frailty.

I call the approach "No Questions Asked." It is, I aver modestly, the best way to handle the problem of late work.

At the start of the semester, each student receives a single page on which are printed four "NQA" coupons and a statement that the student signs and returns to me. "I understand that when I staple an NQA coupon to the top of the first page of my assignment, you will accept it as though it had been submitted on time, no questions asked. I also understand that late assignments *without* the NQA form attached will receive no credit. The point

value for turning my original, uncut sheet is an increase in my semester grade of 1/3 of a grade point (C to C+, C+ to B-, etc.) I also understand that, if lost, the coupons will not be replaced."

I accept no late work—ever—unless a coupon is attached. One coupon must be attached to the assignment for each class (not calendar) day that it is late.

I encourage on-time work by giving a bonus for the return of all four coupons at the end of the semester. Generally, more than 70% of the students will earn the bonus—which means that I have very few late papers.

Whether a paper is late because the student overslept or was in an accident or attended a funeral makes no difference. I accept the work late, no questions asked. Students appreciate not having to con me, and I appreciate not having to try to detect the con. Nor do I have to make any decisions about points off: any late paper with the correct number of NQAs is graded as though it had been submitted on time.

The number of coupons depends on the students and the class. Students in remedial classes generally get more coupons than do students in regular classes; students in classes which meet once a week receive only one coupon. The coupons are numbered, but I discard them and keep no records. This "no questions asked" strategy has been well received by my students, and faculty in other disciplines have found it useful as well.

Bruce Reeves, *Instructor, English*

For further information, contact the author at Diablo Valley College, 321 Golf Club Road, Pleasant Hill, CA 94523.

Quality, Students, and the Teaching Factory

Students in selected engineering technology, industrial, and business programs at Midlands Technical College, along with small and mid-sized manufacturing firms in Columbia, South Carolina, recently have been involved in a revolution—a revolution of teaching, learning, re-training, and manufacturing. Through a careful process of collaboration, the college, local universities, regional industrial firms, vendors, and federal agencies came together to produce a new approach to educating students for the world of manufacturing. Blending elements of total quality management, total quality education, and technology transfer, this collaboration has led to the creation of a working teaching factory.

Like most American manufacturing regions, the greater Columbia area faced several critical issues. Interest in manufacturing careers was declining even though employment demand had increased. Those in the workforce tested at reading and math levels substantially below the needs of local industries. Many local high school graduates choosing to attend Midlands Technical College scored below college level and were placed in developmental courses. The college and local industrial firms faced an economic dilemma of reduced funding at the very time cutting edge equipment, new technology, and revitalized work habits became crucial to meeting the productivity expectations and training needs of the future.

In order to serve tomorrow's manufacturing environment, the college developed the Technologies Application Center (TAC), with a teaching factory at its core. The purposes of the teaching factory are to enhance current curriculum and to develop new curriculum that will focus on computer-integrated manufacturing concepts and applications, provide technology transfer services through the Southeast Manufacturing Technology Center and continuing education to small and medium-sized companies, demonstrate viable solutions to technological challenges across the entire integrated business enterprise, and continue to provide quality education in support of human resource development.

Support for the teaching factory has come from the Southeast Manufacturing Technology Center (funded through the University of South Carolina and the National Institute for Standards in Technology); Digital Corpora-

tion; IBM Corporation; the Society of Plastics Engineers; Whirlpool Corporation; Dana Corporation; and Wrenn Tool Corporation.

To create the best possible teaching arena, a cross-unit team of faculty and industrialists designed a working plant actually making a product. Industrial grade equipment, computer hardware, software, and networks produce a combination of metal and plastic parts that are made, labeled, and packaged to industrial standards. Products are marketed by way of computer networks, and orders are received and processed electronically. The business departments of the college are responsible for the management of the company, receive orders and carry this information to the other departments over the network so that shop release orders, materials, and workers come together on the shop floor at the correct time. Students from different areas of the college, faculty, and staff are involved in the shop floor activities to make, package, ship, and electronically invoice the purchaser for the products. Sales are electronically recorded, but no money is exchanged.

The components of the system are connected on two networks, Ethernet and Token Ring, and include a VAX cluster (VAX 8600/6320), an industrial MICROVAX 3800, shop floor control and data collection via communication to a DEC 3100, and data processing and storage through a DEC 3800. The process control and instrumentation lab is connected to the Ethernet backbone by fiber optics through an optical star, and complete business control is being developed through IBM's MAPICS modules on the IBM-AS400. Connectivity and working across multi-vendor platforms is emphasized with IBM PCs, DEC 3100s, VAX 3100s, IBM clones, Macs and SUNs, all used in the environment.

The teaching factory brings real world application to students, faculty, and our industrial continuing education clients. A distinctive feature in the factory is the use of quality approaches for delivering a product (student) or service (education) that is valuable to the customer (industry). A student not only understands an area of technology, but has the knowledge and communication skills necessary to work as a team player in industry. Faculty members learn to appreciate their constituents and

to work as team members to solve problems. Industrial clients learn that they can use the teaching factory for real solutions.

After three years of development the project has influenced many areas of the college. New courses such as Computer Graphics, Integrated Manufacturing, Manufacturing Business Systems, Computer Controlled Machinery, Total Quality Control, and Cost Control in CIM have been developed. The greatest impact has been on curriculum courses already in place. Students and faculty in Machine Tool Technology, Mechanical Engineering Technology, Electrical Engineering Technology, Engineering Graphics Technology, Commercial Graphics Technology, and Business have been involved in actual design and delivery of the product. Initial feedback from students passing through the teaching factory and from local industries using the factory floor in training and consulting have been positive. Student enrollment in industrial programs has increased nine percent and retention two percent. Industrial clients using the college factory have benefited from their involvement. After implementing CIM-related process improvements, two clients reported total savings of $196,000 in three to six months. Specific quality reports now track client progress and soon will track student progress.

The notion of continuous process improvement taught through the teaching factory has evolved into the ultimate teaching and community service. Faculty have become more dramatically involved in professional development than they dreamed possible. The collaboration of vendors, business, universities, and the community college has become stronger than any articulation. A true team approach has evolved naturally from the bottom up. The bottom line has been positively affected—enrollments, retention, government and private support, and client productivity have increased.

In the teaching factory, student success has come from the teaching process. It has allowed multiple customers to define outcomes, and the teaching factory has focused on the process to deliver those outcomes.

Reid A. Holland, *Vice President for Educational Affairs*

Dan Livingston, *Regional Coordinator, Southeast Manufacturing Technology Center*

Janice Cullen, *Director of Faculty, Staff, and Program Development*

For further information contact the authors at Midlands Technical College, P. O. Box 2408, Columbia, SC 29202.

Celebrate with us!

The 1993 International Conference on Teaching Excellence and Conference of Administrators is scheduled for May 23-26.

Speakers will include Carl Kuttler, Jr., President, St. Petersburg Junior College, and K. Patricia Cross, Professor, University of California at Berkeley. Six pre-conference sessions will be featured, plus special sessions by Wally Cox, College of the Canyons, who will provide instruction in country-and-western dancing. The Conference of Administrators; 1993 NISOD Excellence Awards presentation; Monday-evening Mexican buffet and dance; and tours of Austin, Texas Hill Country, and San Antonio round out the schedule.

For more information, contact Suanne Roueche, Director, NISOD, The University of Texas at Austin, EDB 348, Austin, TX 78712, 512/471-7545.

"At Homes" Downtown

All of the students commute to the community college where I teach philosophy. Some students decry the lack of campus life and the paucity of intellectual and social activities. In the hope of finding companionship and greater academic challenges, many of these students enroll in honors classes. Because our honors program is small, honors students are often combined with students in regular classes and simply end up writing extra papers or "doing extra work" to earn honors credit.

Often I have found it helpful to look in unlikely places for answers to problems which face community college educators in the 1990s, and that is what I did as I sought a better means of serving these students.

When the philosopher-logician Ludwig Wittgenstein was teaching at Cambridge in the mid-1940s, he held "at homes" for his students and colleagues. Students and faculty members met periodically at someone's home. Some student would ask one clear (if anything ever could be clear for Wittgenstein) philosophical question. The question would then be discussed. It was philosophy in its purest form; it was doing, rather than studying, philosophy.

For the past two years I have been having somewhat modified "at homes" with my honors students. My college is located in downtown Dallas, and there are many inexpensive restaurants, so we have met at these rather than at someone's home. We have limited meetings to twice a month and to an hour and a half per session. For each "at home," one student takes total responsibility for choosing the restaurant, making reservations, and planning the session. This student also poses the question and leads the discussion.

These sessions have proven to be very popular with students, and they look forward to them. The "at homes" have served as an excellent means to help students formulate clear questions. The beginning philosophy student's head is frequently jumbled with new ideas and vocabulary; therefore, care and precision in asking questions must be learned. In addition, students learn quickly some protocol of philosophic discourse: do not interrupt when someone is speaking; say only things which are immediately germane to the discussion; entertain opposing view points in Coleridge's "willing

suspension of disbelief." It would please Wittgenstein, I think, that at these sessions we make philosophy very much a business. Toward that end, it is important to limit the length of the sessions. Knowing that time is limited, students become rapidly intolerant of classmates who ramble in discussion, who become overly autobiographical or anecdotal, and who dominate. In my experience, there has been rapid improvement in students' listening and analytical skills.

Before the first session, I have a brief meeting with the students to discuss "at homes." I usually share with them some written accounts of Wittgenstein's sessions from the biographies by some of his students (Malcolm, Redpath, etc.).

I become simply another group member rather than the teacher, and I try to avoid the error Wittgenstein himself sometimes made of lecturing to the "at homers" rather than discussing with them.

Many of my students lack social skills, and organizing a luncheon at a local restaurant is a new experience for them. For some, tipping, assessing a fair portion of the bill to each group member, and selecting from a menu at an ethnic or foreign restaurant are new experiences. Students are encouraged to seek new and different restaurants with low prices. Students have occasionally invited other faculty members to join us, and on several occasions, waitpeople, restaurant owners, and other patrons have spontaneously joined in the discussion, much to the delight of the students.

Questions have run a wide gamut. Recent examples include: "Does it make sense to talk of owing money to one's self or giving one's self a gift?" "What are the differences in arguments about abortion and those about euthanasia?" "Can I ever mistake myself for someone else?" "How do the arguments for multiculturalism in education stand up against Mill's principle of utility?" and "Was Descartes serious about having difficulty distinguishing between dreaming and waking?" Usually the questions are unannounced prior to the meeting. Some students have complained that they want "to study" material pertaining to the "at home" discussions. Many times the questioner has solved that complaint by providing photocopied material to students after the session.

Most prefer to keep the question a surprise. The "at homes" have proven to be simple and yet very productive ways to give some new philosophical experiences to honors students as well as to provide some sense of community in their college lives. I think the "at home" concept would work in disciplines other than philosophy—particularly English, history, government, and the humanities. These sessions provide a rewarding time for teacher and student alike.

Robert C. Bennett, *Instructor, Philosophy*

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Gamesmanship in the Classroom

All of us have played games. One of my favorite memories in high school was the game we played in history class to review for tests, fashioned after the television show Jeopardy. We would play in teams the day before a test.

Now, as a teacher in Nursing, I have found that this same game allows students to synthesize and apply some of their learning. Often students struggle with the conceptual processes of client problem solving and planning of patient care, called the Nursing Process. The game, developed with the television version of Jeopardy in mind, gives teams of students the opportunity to apply the nursing process in a fun, low-stress environment. It also promotes teamwork and communication, both an integral part of nursing. Students love to play and often find they have learned more than they thought, which boosts their self-esteem and confidence.

The game itself is simple. Categories within the nursing process are identified, and questions are generated with answers of varying degrees of difficulty. All of the information is mapped out on computer, printed, and copied onto overheads. Teams of four to five students pick from the categories and degrees of difficulty, based on number of points assigned to correct answers. At the end of the playing time, each team wagers an amount based on the total points they have accumulated. A final question is given to both teams. A correct answer on the final question allows the team's wager to be added to the point total; a wrong answer requires the points to be subtracted. The team with the most points at the end of the game wins.

This game has proven to be a learning tool for students and a source of valuable information for me. What I learn about the information my students have retained allows me to focus my teaching on areas of weakness while supporting areas of mastery.

Kathi Leitzau, *Instructor, Nursing*

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A Strategy for Teaching the International Dimension of Math

Mathematics is an international language. When the Virginia Community College System mounted a push to internationalize the community college curriculum, my first reaction was: "Hey, I'm already there."

At the same time, however, I was developing a transfer math course for liberal arts students who might benefit from a different approach to mathematics, by concentrating on logic, reasoning, and the nature of mathematics itself. The courses traditionally offered for college transfer—precalculus and calculus—tend to have a focus better suited to science and engineering majors.

While thinking about this new course, I realized that not only is mathematics an international language, it is also a product of the international community, past and present. However, students tend to think of mathematics as a body of knowledge made, for the most part, in America. This is perhaps inevitable, given America's pre-eminence in science and technology during the past few decades. No doubt, it also reflects the fact that the U.S. was colonized by adventuresome people who valued themselves and their own abilities well above the average for the populations from which they emigrated. This self-confidence has permeated our culture, often to the detriment of our understanding of other peoples of the world and their contributions to the advancement of humankind.

Virginia's Project International Emphasis helped me design a way to change that perception and make students sensitive to the fact that math is multinational and multicultural, the result of contributions from many cultures over several millennia. To initiate the module, I give a background lecture and provide a bibliography. Students meet with me to have their topic approved and then prepare a paper, using standard research paper methodology. Successful papers are presented informally (i.e., not read) to the class for discussion.

This module accomplishes several goals beyond sensitizing students to the multicultural nature and history of mathematics. The module also requires students to read widely in the field. (How many liberal arts students would, otherwise, ever look at a book dealing with the history and development of math?) It requires them to organize their thoughts and to write at length (not always easy to implement in a math class) and offers them an opportunity to develop oral communication skills through pre-senting and engaging in class discussion of papers. I hope it deepens their awareness of mathematics as a sometimes dazzling creative outlet for the mind— similar in that respect to other artistic and human accomplishments.

With the groundwork completed, I taught the module for the first time in the spring 1992 semester. And the result? Better than I had anticipated! For the most part, papers were thoroughly researched and well-written. The diversity of topics was fascinating. The most successful were, of course, those papers that most closely meshed with the student's particular interests or future career goals. For instance, one student, a prospective teacher, researched Japanese teaching methods in mathematics. Another wrote about the ancient Egyptian number system. There were studies of Pascal and Fermat and Emily de Breteuil, a paper on the abacus, and another on mathematics in the Middle Ages.

Helping students find meaningful topics (meaningful from their *own* perspectives) is critical. Conferences are invaluable tools for accomplishing this objective. It is important, too, that students be given time to do some preliminary reading and thinking before selecting their specific topics.

At the end of the course, in addition to the usual course evaluation, students were asked to evaluate the module. Comments were overwhelmingly positive. Mathematics can be meaningful to all students if seen in the context of humankind's intellectual development. Creating an international module is one way of establishing that context.

George Heffernan, *Assistant Professor, Mathematics*

Ron Carter, *Campus Coordinator, Project International Emphasis*

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Evaluating Complimentary Textbooks Through Student Use

Another examination copy of a textbook arrives, only to be put on the shelf and ignored. Evaluating new and updated books is essential, but time-consuming. The following strategy is a useful procedure for evaluating complimentary texts. The process is used currently in a biology laboratory but could be adapted to any classroom situation.

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As complimentary biology texts arrive in the mail, they are placed on a cart in the lab room. On assigned days, the texts are used by the students.

1. *The topic is researched.* Each student selects a textbook from the cart and researches the lab topic—for example, frogs. This activity counts as 10 extra points on the day's lab grade.
2. *The student writes.* The student takes two pages of notes about the topic—frogs—from the book he or she has chosen. This usually takes about 30 minutes. Copying word-for-word is discouraged.
3. *The student gives feedback.* After the students complete their papers, each tells the class one interesting fact about the topic. The student must give an opinion about the textbook (i.e., it was easy to read, the pictures or illustrations were helpful, or it was well organized). The instructor keeps a record of student feedback.
4. *The student submits the work.* The students submit their papers, noting the textbook title. The instructor reviews this information, looking for correct and current information, detailed and explicit explanations and diagrams, and interesting facts and theories not found in other texts.

Evaluating complimentary texts in this manner has many advantages.

1. *It involves the student through supervised research.* With the instructor present to help and encourage, students can better learn what is important and what is extraneous to conducting research.
2. *It keeps the teacher up-to-date.* Class time can be used to inform the teacher about new issues and facts (especially valuable in science).
3. *It frees office hours for other teaching matters and study.* By eliminating the usual time-consuming process of studying complimentary texts, the teacher has more time for research and counseling.

4. *It supplies the classroom with supplementary materials.* The teacher can compare the current course textbook with information and perspectives from others.
5. *It requires critical reading.* Researching a topic helps students become critical readers as they receive feedback from the instructor and their peers. Sharing information from their reading, students interact and share discoveries.
6. *It is non-threatening.* Students usually view the 10 points as extra credit and do not feel the pressure that working for a grade usually generates.

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Students now hurry to class to get the best textbooks. This behavior alone identifies the most informative books for the instructor. In the truest sense, the student's search for knowledge is the basis of this teaching/learning method. Classroom use of complimentary texts may well be a valuable teaching tool, as well as a bonus for the instructor. This process gets extra texts off the shelf, puts them to good use, and provides a handy reference guide for textbooks and their relative merits and liabilities.

Sandy Garrett, *Professor, Biology*

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The Portfolio Process and Accountability

Most students fear writing. They ask: "What am I going to write about? How do I come up with ideas?" They answer: "Nothing comes to my mind. I have brain drain." Historically, students tend to negate a potentially good idea by denying its existence. They never put it on paper and try it out. If most good ideas are eliminated in this fashion, then the student is left without any foundation on which to construct a single paragraph or an entire essay.

In an effort to remedy this problem, I require students to list 200 very broad topics that interest them or that might stimulate their curiosity. Depending on the motivational level of the class, I sometimes will call out topics and let students "claim" them. At this point, my role is that of facilitative provider. I give; they receive. They are like sponges as they absorb the ideas offered to them.

As I offer a multitude of possibilities, some students break away to complete the exercise with their peers. They move to another section of the classroom reserved for group work. They generously trade ideas with their colleagues. This is a growth process; they begin to feel confident enough to formulate their own ideas.

Students who prefer to work solo leave the classroom to work quietly in a nearby empty room or in the library. Their independence allows them to work at their own pace and to consider abstract possibilities. [Their behavior indicates that they might be suitable candidates to serve later on as Peer Assistant Writers (PAWs).]

After all 200 topics have been "discovered," students are required to assign a working title to each. This step encourages creativity spawned by the students' developing self-confidence. They have the freedom to change any topic or title at any time; no writer is ever held hostage to any single idea. The student controls (maneuvers, works) an idea. He/she is the master of each and every thought. Again, students may take the liberty of working collaboratively or alone during this activity. In either case, I withdraw myself from the process and study who is doing what and how.

At this juncture, students are ready to move to the next step. All too often they are tormented with the question: "How do I present my ideas so that they will make sense to the reader?" Translated, the question becomes a statement: "I have trouble with/I fear outlining." In an effort

to move beyond this concern, students choose 10 topics and their corresponding titles. The importance of the outline is emphasized: it is the cornerstone of the entire piece. If it is weak, the composition will lack structure. Conversely, if it is strong, it will serve the writer's purpose well. Students usually bemoan the number of outlines assigned; however, they finally conclude that the practice of outlining is only as valuable as its application. Moreover, their "manuscript" is essentially written once they have done justice to their outlines.

Armed with a new sense of security, students attack the next challenge—portfolio writing—with enthusiasm. Students are instructed to appoint a committee whose members (a minimum of three and a maximum of five) then serve as readers for writing projects. The readers are charged with providing a written critique of each piece for which they are accountable. Reinking and Hart's (1991) strategies for successful writing provide an excellent peer response checklist.

✓ What is the main point of this essay?
✓ What is the biggest problem?
✓ What is the biggest strength?
✓ What material does not seem to fit the main point or the audience?
✓ What questions has the author not answered?
✓ Where should more details or examples be added?
✓ At what point does the paper fail to hold my interest?
✓ Where is organization confusing?
✓ Where is the writing unclear or vague?

After the reading period, all papers are returned to their owners for review. Writers are instructed not to make any changes.

At the next class meeting, writers and their committees meet and query each other about the constructive criticism that has been offered of the writing. Here, writers must decide to press forward with the piece as originally written or to make the recommended changes. Because it is human nature to be one's own worst critic, students frequently will rewrite their pieces several times prior to submitting them for my evaluation.

When they present their pieces to me, I make no corrections immediately. Rather, I make general comments about areas which still need attention (punctuation, spell-

ing, point of view, etc.) and return the papers. Students meet with me and analyze all suggestions in preparation for the final submission of their work and my formal evaluation. [Students are graded in four areas: conferences, cumulative effort (drafts), clarity, and syntax.]

The portfolio process transcends its academic value. Students are distracted from working solely for a grade, and they begin to recognize and appreciate that writing is a logical process. They develop pride in their work, not unlike master craftsmen. Finally, they have a tangible product to present to employers, a definite asset in this age of accountability.

Denise S. St. Cyr, *Professor, Humanities and Social Sciences*

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Technical Students and Communications: Bridging the Gap

When our institute became a community college, not all students in our technical programs appreciated the opportunity to participate in required general education courses. Many students began communications courses with such comments as "I can hire a secretary to do that" or "I don't need good English to be an auto mechanic." Therefore, while we had decided to focus our communication skills course on teaching students how to relate to others and how to express themselves as professionals, we first had to help them realize the relevance of oral and written communication to technical fields and offer them low-risk opportunities for practicing these communication skills.

As we demonstrate our interest in their major areas of study and their ultimate professions, we stress the communication skills that will augment students' technical skills. Each class assignment is purposefully related to students' individual areas of study. Students learn how writing letters, interviewing, and using the telephone apply directly to their fields of interest. For example, when composing a sales letter, a student might write about a new business he or she planned to open. Another might write a letter of adjustment in which problem-solving skills and tact must be effectively applied to discussing business problems. When delivering presentations, students are encouraged to speak about technical topics, demonstrate their use of equipment, or invite their communication skills classmates to the technical classroom. Students use the library to research information in their field and become acquainted with professional journals.

When the quarter ends, all students might not be able to prepare all written documents using perfect grammar, but they have a college dictionary to assist them with correct spelling, they can speak with less nervousness in front of a group, they can prepare business letters for several situations, and they know how to conduct research. We hope that they ultimately will be as proud of their newly developed communication skills as they are of their technical skills and that they will be stronger professionals as a result.

Rebecca Kamm, *Instructor, Communications*

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Breaking the Foreign Language Barrier of Economics: Letting Students Help Out

The language of economics is distinctive. The field uses its own technical terminology to describe principles and concepts. Terms which have common, everyday usage may have a specific definition in economics. The term *investment* is a good example. In everyday conversation people commonly use the term *investment* to describe the purchase of stocks, bonds, or similar securities. In economics, however, these are defined as various forms of savings since they are merely the trading of paper for paper. *Investment* is defined as an expenditure which results in real economic expansion—that is, the purchase of factories, machinery, and equipment, acquisitions which will produce real goods which may result from the savings activity. Understanding such distinctions can be confusing. Therefore, economics is much like a foreign language to most students.

Furthermore, few subjects are as all-encompassing as economics, even at the introductory level. The student's initial exposure to both micro and macro theory requires a working knowledge of several subjects. It is virtually impossible to analyze economic events for significance and relevance without historical context for comparison. In order to understand the issues of consumer, business firm, and government behavior, it is important to understand psychology and philosophy. Putting economics into the larger social scheme clearly requires a knowledge of sociology. In addition, mathematical skills in algebra, calculus, and graphs are required to accurately represent the principles and concepts.

I have found that the students may be the answer to the language problem in economics. Who better to put the material into language the students can understand? The result is a more cooperative student effort in teaching economics. Individual students, or groups of students (for larger chapters), conduct the majority of the lectures. I work with them to insure accuracy and proper coverage; however, examples, illustrations, and delivery must be as original and creative as possible.

Macroeconomics focuses on four basic topics: inflation, unemployment, economic growth as represented by the measure of GNP, and the money supply. During the semester, students select various issues within these topics

on which to lecture. I have had students appear as Karl Marx to present a 19th-century perspective. This entailed students dressing in vested suits and factory work clothes cut in the fashion of this period and wearing wigs and beards styled to look like Marx. Similar presentations have also enhanced this objective, although I am sure David Ricardo never referred to Adam Smith as an "awesome dude."

Towards the end of the semester, students select different foreign countries on which to report. Presenting the status of the four primary topics of the course to establish a comparative base with the U.S., the students report on cultural idiosyncratic business practices and speculate on future trends of their selected countries relative to the U.S. and the global marketplace. Class presentations have included discussions, debates, videos, and ethnic food samples.

Presentations in the area of microeconomics are similar. This course focuses on the free enterprise market mechanism illustrated through the supply and demand functions representing the relationship between price and quantity output. Specific topics include consumer behavior, business firm behavior, and the government. Detailed analysis includes the output market structures for finished goods, the input market focusing on the production function, and finally various applied topics such as poverty and government regulation. Individual students may select an area, or a group may choose to do an entire chapter or unit, and present the material using a variety of techniques. They may employ visual aids, such as overhead transparencies. Again, the objective is to present the specifics at a language level to which the students can relate.

This technique has not replaced my standard lecture format for the class, but I have found that it augments the material and helps avoid the unfortunate conception that economics is the "dismal science." Students get involved in their presentations, and some even appreciate better what the instructor does to prepare for a class. To help monitor the use of this technique, I often survey the class regarding the presentations. Although the results of this survey vary significantly between classes and semesters,

there are some common themes.

1. Students do not prepare differently for these class presentations than for those led by the instructor.
2. Students generally grade the presentations as quite good and describe them as "clarifying" techniques.
3. Suggestions for improving presentations focus on public speaking.
4. Generally, students like this teaching/learning technique since it gives them an opportunity to become directly involved in the process.
5. Most of the students recommend that this format be used again, praising the degree of interaction in the learning process which it provides.
6. Most students prefer that the regular course instructor be present during the presentations. It is generally felt that this increases the students' confidence with respect to accuracy of information, both in presenting the topic and in learning the material.
7. No one, as yet, thinks the presentations should be videotaped.
8. Criteria for grading student presentations include: coverage of course material, class performance on subsequent tests, classroom management ability, eliciting class participation, scores on an interest/ boredom scale (a kind of "fun factor"), and general public-speaking ability.
9. So far it is generally felt that the class (audience) should not be graded for participation in a specific presentation. Students do not like risking a poor class participation grade which may be the response to a poor presentation.

Introductory level economics principles courses have not changed significantly over the years with respect to concepts and fundamentals. Teaching the course, however, can change with each new class—just by asking the students, in their own language.

William S. Brewer, *Instructor, Economics*

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Fallacies, Misinformation, and Old Wives' Tales

Most students will bring fallacies, misinformation, old wives' tales, or whatever we want to call them, to our classrooms. These misconceptions about our disciplines are often regarded and accepted by students as "common knowledge."

I try to debunk these examples of myth-information in my microbiology course by addressing them in a lecture and then having students write two-character dialogues about them. Students are to pick their characters from television sitcoms or comedy films. One character in the dialogue must state the common misconceptions while the other character must enlighten his associate.

In explaining the exercise, I offer sample characters, such as Woody and Carla from *Cheers*, or Lucy and Ricky Ricardo from *I Love Lucy*. The students always get smiles on their faces and, working in pairs, dive into their work. They have a chance to demonstrate their humor and creativity as they complete an otherwise potentially dry exercise.

The bonus for me comes when I read and critique the dialogues. Normally, reading stacks of single essays or longer papers on any topic—for example, bacterial

antibiotic resistance—can be boring (even for a teacher fascinated by his/her subject). However, with this assignment I might read one conversation between Bill and Ted discussing this "truly excellent problem" followed by Ward Cleaver having a talk with the Beav. The students' papers are always more entertaining than TV or the movies. As a follow-up, after critiquing the written dialogues for microbiological subject content, I make copies of one or two of the best explanations and distribute them to the class. Consequently, each student receives individual comments along with a model explanation for comparison.

This technique is flexible: students can write individually or collaboratively, inside or outside of class; the assignment can be graded or used as an ungraded learning exercise. In short, this teaching technique works with a variety of subjects and diverse teaching styles.

Gary Alderson, *Associate Professor, Life Sciences*

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"Realistic" Strategies for Teaching Speakers of Black English

Today, most public colleges serving large or rapidly growing multicultural communities are working aggressively to attract and retain minority students. Ironically, recruitment successes at such schools frequently have resulted in problems of acclimation for newly enrolled minority students, especially those who speak and write Black English. One of the current challenges to college faculty, consequently, has been to implement a realistic method of teaching these students to write and speak Standard English while not deprecating the cultural imperatives of Black English. In short, many faculty are facing the dilemma of teaching students that our society values multiculturalism but that there are real-world limitations to Standard English deficiencies. I have devised strategies over the years for combating bias against Black English while concurrently developing a realistic approach regarding the strengths and limitations of this dialect. These curricular approaches, applicable to most disciplines, are designed specifically to help prevent Black English-speaking students from becoming at-risk students.

In any discussion of pedagogy and Black English, it should be understood that entry into the American consensus is verbally oriented and often measured by how "articulate" and "erudite" the speaker is perceived to be. Educators must understand that in the case of Black English—which about 80 percent of African-Americans speak in various dialectical forms—the correctness of grammar is linked to both linguistic and sociological factors. Thus, it becomes necessary for instructors to view speakers of Black English within the context of educational and cultural imperatives.

A recurring problem speakers of Black English face in instructional settings is the bias listeners may have against students who speak a "substandard" dialect. Unfortunately, the subjects of this pattern are the most likely candidates for code words such as "slow learner," "in need of remediation," or "not a strong potential candidate." Obviously, if students are labeled as less capable and are then treated as such, they may well begin to display characteristics of those who are, indeed, less capable of meeting Standard English norms.

While not consciously meant to deflate the self-esteem of minority students, talk which equates Black English to deficiencies may result in frustrating this segment of the student body. In order to counteract such impediments to student speakers of Black English, faculty and administrators must foment goals and strategies that provide positive attitudes toward the cultural background of Black English and its possible limitations. Through a process of trial and error, I have discovered strategies critical to the development of realistic curricula that accept and even celebrate, when appropriate, the pluralistic approach to multilingualism. It must be understood, however, that no strategy will prove successful in helping students understand *why* it is important to speak Standard English unless the instructor understands the sociolinguistic factors of Black English and manifests a sensitivity to the cultural standards of those who speak the dialect.

• Invite an English or linguistics professor with expertise in Black English to discuss the dialect's structure, use, history, and differences from Standard English. Urge your guest speaker in advance to acknowledge that for many African-Americans, Black English is a language they use with family and friends. But also suggest that your speaker artfully point out the practical and vocational advantages of speaking Standard English.

• Invite a psychology or sociology professor to talk about the implications of self-esteem for Black English speakers. It is helpful if the professor is an African-American, who can share with the students some of his/her personal experiences with Black English in the community and in academe.

• Invite someone from the psychology or sociology department with expertise in cross-cultural relations or cultural bias and relativity. I have found the most useful such tests to be "The Dove Counterbalance Intelligence Test," "The Bell All-American Intelligence Test," and the "Black Intelligence Test of Cultural Homogeneity" (BITCH Test), all of which are standard tests available in a wide range of multiculturally oriented publications.

• Use case vignettes as teaching tools. The videotape "Minorities in the Classroom," which is a series of critical-incident cases involving cultural and language bias, always sparks lively discussions on possible limitations

of Black English. Also, the video is useful primer for role playing (although many videos on the market will prove equally effective lead-ins).

• Use recordings of students' speech patterns for peer or self-evaluation. Encourage students to critique each other's speech patterns. Instruct your students to reject value judgments and to emphasize the positive.

• Provide students with opportunities to speak in small groups or pairs before asking them to speak in front of the entire class. Observe the less-inhibited Black English speakers in these small-group situations and encourage them to take the lead in the wider-classroom discussions. Be careful that students feel neither isolated nor compelled to become the "resident spokesperson" for the subject of Black English.

• Encourage Black English-speaking students to listen to successful African-Americans outside the classroom—for example, popular television newscasters or talk show hosts, ministers, doctors, politicians, businesspersons, and other public officials. Follow up by providing students with the opportunity to discuss their observations within the context of their own professional aspirations.

• Whenever possible, offer substitute Standard English patterns for Black English dialect, especially in written work, with such effective key phrases as, "Is it possible to word this more effectively by. . .?" or, "If you worded it this way, would it perhaps carry more punch or attraction for a wider audience?" With practice, you will write such phrases almost naturally, but you must follow them with *specific* examples from Standard English.

These selected learning strategies will not only help in the sometimes painful process of acclimating Black English speakers to the classroom and to the larger college community, but they will also serve in meaningful ways to prepare such students for the world outside the classroom. After all, it is the business of college teachers to prepare all their students to make a living in that world.

Irvin D. Solomon, *Professor, African-American History*

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Critic for a Day: Low-Risk Activities for the High-Risk Student

With the current emphasis on critical thinking, classroom strategies have worn the cloaks of many pedagogical innovations that are designed to get students to think. Cooperative and collaborative learning activities rank high among successful efforts to teach a video generation, grown accustomed to "vegging out," how to read, to write, to think! Masters at retelling the story (soaps, movies, the latest crime report), our students fall short of making meaning of the reconstructed events. In a sophomore survey of literature course, where a student is likely to sample the works of 35 to 40 writers in a quarter, students must be skilled in more than plot mastery. Besides, we instructors never agreed to teach Masterplots 101!

Although freshman composition classes offer specific instruction in writing about literature, students frequently may not enroll in a literature class until several quarters later—after videos have again intruded, and plots, not meaning and style, have become the essence of literature. The transference of skills previously learned in the composition class is noticeably absent in some students' work, putting them at risk for failure in a course that moves rapidly through literary periods, genres, and writers. Creating assignments that incorporate critical thinking skills is one way to get students focused on the ideas behind the narrative.

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Daily class activities that encourage students to assume the role of literary critic can offer students the practice they need to retrieve some of the skills lost during the journey from freshman composition to sophomore literature. Through the use of panel discussions and small group analyses of assigned readings, students can practice the techniques of close reading of the text. By the end of the quarter, they are able to demonstrate mastery of this skill in major assignments, such as the research paper. For example, having five small groups each tackle two sections of Alexander Pope's "Essay on Man" is a much more productive way to teach that philosophical poem than the old "wait-for-the-teacher-to-say-what-it-means" approach. One method results in a mute group of glassy-eyed notetakers; the other results in a lively interchange about the meaning of passages as the groups answer study-questions and then present their findings to the

entire class, referencing the literary work in the process. For the students, participation is a low-risk activity that allows them to learn or fine-tune fundamental skills in analyzing a literary work and to showcase their talent without failing a paper or test in the process. Essay questions on tests and the final exam reinforce these skills by requiring synthesis and analysis of the material covered during the quarter.

The use of panel discussions in class is another low-risk activity which allows students to practice their skill at literary analysis. Extra-credit points will sufficiently entice the phantom in the back corner into one of the chairs situated at the front of the class. With book in hand and a list of questions given ahead of time to get them started, students discuss key points in the work and address questions or challenges from their classmates. Having several of their classmates seated next to them takes care of the jitters and not having to write out answers reduces the anxiety of exploring the meaning of a literary work. For example, a panel discussion on A Raisin in the Sun might begin with a serious discussion of deferred dreams and ethical issues but erupt into a heated gender debate about male/female relationships. At this point, students have learned that recitation of plot details is no longer the preferred contribution to the class (or group) discussion.

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Both small groups and panel discussions assist students in realizing the possibilities for analyzing works of literature. Students see that multiple interpretations are possible, and they learn the value of intellectual debate. The sophistication that students gain in discussing works of literature will be reflected in essay responses on tests and the final exam. In addition, their literary essays and research papers just might contain that long-awaited depth of analysis!

Maxine Sample, Associate Professor, Humanities

For further information, contact the author at DeKalb College, 3251 Panthersville Road, Decatur, GA 30034.

Physics Home Experiments

After three years of teaching physics at Lexington Community College, I observed that the retention rate for the introductory physics courses (sometimes called Physics for Liberal Arts Students) was 50% or less, a discouraging discovery. The majority of the students in my classes did not have any previous physics courses; some of them had very little hands-on experience in *any* science. Home experiments seemed a promising way to teach physics to these students.

I designed experiments with various parts; each part tested a particular concept that had been studied in class. Experiments included tests of: reaction-time; momentum; work and energy; torque; center of mass; density with egg, water, and salt; waves; heat; electrostatics; current electricity; electromagnets; electromagnetic induction; waves and interference; and radioactive decay.

The experiments were assigned as homework. Students were warned to take appropriate safety precautions. Almost all of the experiments required a partner. There were few complaints about this requirement—e.g., one student complained that her two-year-old was the only person available to serve as her partner and he kept running away with the ball she needed to conduct her experiment; another argued that his dog disrupted his work.

Students were to write a hypothesis and test it. For some of the experiments, students were told what would happen so that they could look for the appropriate results. For others, they had to figure out what was happening by reading their text and applying the concept studied in class. Students were frequently reminded that it was acceptable to discover a contradiction to their hypothesis, that many scientific ideas were developed from contradictions. However, contradictions were difficult for students to accept; they hated to be wrong.

Once the students settled into these activities, usually after the second or third experiment, they began to enjoy them. They started making comments such as "Cool. I had no idea it would work!" One student said that she would never look at another rainbow or sunset without thinking about how it was produced.

My concerns were about the cost of the items students had to buy and the time it took to conduct the experiments (on average, 30 to 90 minutes each). However, many students wrote that these experiments did not cost more than activities in their other classes.

One amazing result of the home experiments was that the retention rate in classes assigned these out-of-class activities soared to over 67%. Many students who fit the profile of those who would have failed the course or dropped out—those below average in performance—stayed on and completed the course with a passing grade. It appeared that they were encouraged by the experiments, which helped them to understand better the concepts we discussed in class.

I will continue to assign home experiments to introduce students to scientific experimentation. In addition, I hope to arouse not only my students' curiosity but also the curiosity of their children. If I help one parent encourage one child to join a science program, I have achieved a major teaching goal.

Seetha Subramanian, *Instructor, Physics*

For further information, contact the author at Lexington Community College, Physical Sciences & Engineering Technologies, 226 Moloney Building, Lexington, KY 40506-0235.

INNOVATION ABSTRACTS

Who In Their Right Mind . . .

As experienced, well-educated teachers, we can all vouch for the importance and the necessity of administering essay tests to students. As an English instructor, I can easily claim that such exams certainly help to reinforce writing-across-the-curriculum composition skills. We know, of course, that the function of essay tests is so much more. As a tool they allow teachers to encourage the assimilation of material. But who in their right mind gives such tests? And who has time to grade much of the inevitable dribble?

Reasons that instructors give for not requiring essay questions are numerous. Rampant problems in grammar, usage, spelling, and punctuation often make grading difficult. Often, not all of our students have yet enrolled in (or have passed) a basic composition course or they do not automatically apply writing skills they have been taught. Still some teachers claim it is difficult to write questions in certain areas, as in math, art lab, and band. Naturally, the grading of all those rambling, poorly focused answers are considered too time-consuming to read.

Unfortunately, these excuses sound as though instructors have as many anxieties over *giving* essays as students have in *taking* them. Fortunately, the administration of these questions does not require any teacher to lose sleep or hair.

Realistically, teachers cannot expect students to compose Pulitzer Prize-winning essays over the meaning of life while regurgitating every minute detail within a 60-minute time period. With a little luck, teachers might be awarded with a few sketchy notes regarding Monty Python's contribution to the film industry. Yet, we all are guilty of poor question writing, of expecting more than our students are capable of producing, and of not preparing our students adequately for such questions. Consequently, teachers become disappointed both in their students' and in their own abilities. Meanwhile, students become disillusioned with their own study skills and potential for academic success.

What we teachers can do is help our students help themselves. By implementing a simple variation to the essay exam routine, teachers can be rewarded with compositions that have thought and continuity. As an extra bonus, essays become easier to read, thus reducing the amount of time instructors may allot for reading them. In addition,

time spent normally in class completing exams will be greatly reduced so teachers can cover other important material.

The task is really quite simple. Conscientious teachers must allow students *time*—a most critical element—to consider all the ramifications of and arguments that support their theses. Even the best students cannot adequately brainstorm, organize, implement, and edit within one class period. This is especially true when many tests require students to complete true/false, multiple choice, fill-in-the-blank, and matching components.

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Give students the essay questions a few days prior to the examination.

Can teachers then expect their students to review carefully all that applies from their books and notes? YES! Maybe not all will take the opportunity seriously on their *first* test. But teachers can certainly anticipate a rise in student enthusiasm for pretest questions for succeeding tests. Students will know what to expect, what they lack, and what they need. In addition, they will have more control over their own successes.

Will their *writing* be that much improved? YES! They will have time to research and to revise their work—two important tasks to all writing. Some students will even "word process" their answers, making illegible handwriting a headache of the past. Some, perhaps, will even implement on their computers not only a spell-check function but also a grammar-check function. What teachers receive in return is text that is easy to read and, therefore, read quickly and enjoyably.

Soon students learn what to expect from their instructors. As an added bonus, questions and discussions in class may dramatically improve as students begin to experiment and to test the importance and application of material covered in class. Eventually, students may take more initiative for their learning.

Some teachers may feel uncomfortable having students complete whole essay portions of an exam outside of class. Still, these teachers can provide questions ahead of time but require students to write them during class time. Perhaps by the time of the final exam, instructors may not need to provide questions early. Hopefully, students will have then learned much regarding what material their

teachers value and what material needs to be retained.

For one test, one instructor implemented a special twist to giving pretest essay questions. The simple variation allowed students choices while still forcing them to prepare for all the material covered. A few days before the exam, students received a handout of eight questions to prepare. On the day of the exam, students were handed the same eight questions, but this time the instructor had randomly circled three of the questions. Students then could select two of those three questions to answer.

The benefits were numerous. One, by not knowing which three questions they would eventually be assigned, *all* students had to prepare and to study for *all* of the questions. Two, because the questions covered so much material, many student broke off into teams of eight, each student volunteering to focus on one particular question for a mini-lecture to the rest of their team. All the material from class, therefore, was reviewed collaboratively. Three, because students were aware that they would be able to select two of the three circled questions, some test anxiety was relieved. Consequently, students took back some control and responsibility regarding their pending success. Four, the teacher eliminated his own fear of growing bored with reading the same essay answers over and over again.

One student, who was responsible for receiving question #7 for her group, was given the option of picking from questions #2, #4, and #7 for the actual test. Even though she felt confident to answer #7, she selected #2 and #4 instead. Consequently, she pulled not only ideas from her own study and observations but also ideas from the others in her study group who contributed to the review.

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In order for students to take the answering of such questions seriously, teachers must take the composing and the delivering of such questions seriously, too. Instructors who casually rattle off topic areas for possible questions will get paragraphs of casual rattle. On the other hand, those instructors who in a formal setting write questions on the board, shine them off an overhead projector, or print them up ahead of time will indeed receive answers that have been researched and carefully considered.

By being aware of the questions prior to tests, students learn for themselves the application of elements taught in their composition courses for their essay tests. Teachers, on the other hand, will not have to squander valuable time attempting to decipher illegible script but will gain more free time because answers are easier to read. In addition, students learn the importance of note-taking, of developing alliances within their classes, of managing their study time, of analyzing material, and of conveying their ideas in clear and concise readable text.

Rachel Nulton, *Instructor, English*

INNOVATION ABSTRACTS

Publishing: Confessions of a Chemistry Professor

A 1989 national survey by the Carnegie Foundation reveals 28 percent of academic Ph.D.'s have never published an article. Another 28 percent have produced no publications in the last five years. These numbers are surely higher for academics at the community college. In light of the survey, my confession is rather commonplace.

During the period of promotion from instructor to associate professor of chemistry, I did not publish. Furthermore, I lacked the writing skills to generate articles in a form suitable for publication in most journals. But my situation is not unique. Community colleges hire faculty to teach and often look with scorn at university professors living in "ivory towers," that is, devoted to research and apathetic to teaching.

Typical of most students in a science curriculum, I did not consider English and writing-related courses as relevant—math and the sciences were clearly my focus. My academic background includes four years of undergraduate studies at Pratt Institute, a master's degree from New Mexico Institute of Technology, and a doctorate in polymer chemistry from The University of Akron. The rigors of graduate school were comprised of coursework, qualifying exams, research, and dissertations. While I did struggle to write dissertation drafts, the final versions were "edited" by my advisors. At the time, it seemed graduate faculty advisors were blessed with the ability to write, and I gratefully accepted the help.

Immediately following graduate school, I started teaching chemistry at the two-year branch campus of The University of Akron. During the first decade of employment, I organized courses, read pertinent journals, attended two conferences each year, served on a number of college committees, and designated ample office time to assist students. The bottom line: While fine-tuning courses and teaching skills, my academic activities outside the classroom remained stagnant.

After 10 years, a turning point in my career arrived along with the college's initial purchase of IBM personal computers. I mastered the powerful assembly language, and with this tool, developed sophisticated programs to perform what I considered remarkable feats: I could recover erased files, access copy protected software, make screens pop up, encrypt files, and much more. At that point in my life, I was not about to discover a new law or

synthesize the next wonder drug. But having invested many hours in learning the inner workings of the computer, I wanted to report my exploits. Although I had attempted no formal writing since the doctoral thesis— more than a decade earlier—I launched into writing a computer article.

The process proved slow, but I did generate an article entitled "Recovering PC-DOS Files." I mailed the manuscript to the appropriate computer journals and waited anxiously for replies. Rejection letters trickled in, along with one positive response from *Micro/Systems Journal*. It made no difference that the returned manuscript flowed red ink the likes of which I had not seen since my dissertations. The grammar was basically correct, but the article lacked style; it suffered from weak sentence structure and unclear passages. The editor instructed me to "clean it up" and resubmit. I did as instructed; eventually, the revised article was published.

Inspired by the initial success, I submitted a second article, "Creating a Copy Protected Program," to the same journal. And once again, the manuscript required significant editing. Over the next six years I continued to write articles on a regular basis—at last count, nine computer and four chemistry publications to my credit. Interestingly, the most recent papers required very minor editing.

Undoubtedly my writing has improved; writing-across-the-curriculum advocates tell us this will happen with practice. What else can be gained from my story? Since publishing the first article in 1986, my nonteaching activities have expanded to over a dozen publications, three papers presented at the Two-Year College Chemistry Conference, and three chemistry laboratory manuals for in-house use. Also, as a direct result of being cited in other papers, I have served as a referee for the *Journal of Chemical Education*. While not on course for a Nobel Prize, the diversity of my professional accomplishments has increased markedly.

Conventional wisdom warns us that too much work may lead to burnout, an affliction common to veteran teachers. Contrary to conventional wisdom, I believe burnout is more likely to result from lack of creativity when teaching the same courses year after year. During periods when I am not writing and publishing, I find myself most prone to lose interest in teaching. I teach the

same courses every semester and typically grade over 100 lab reports weekly. Writing articles has helped protect me from burnout.

Community colleges are often referred to as "teaching institutions." With the primary mission of providing students first-rate classroom instruction, is it really necessary for faculty at these institutions to publish? I respond with a strong "yes." Besides reducing burnout, a publishing faculty will bring more innovative ideas to the classroom, as well as enhance the image of the institution. The issue is not whether faculty at the community college should publish, but rather, how to encourage them to publish.

Week after week excellent articles appear in *Innovation Abstracts* describing original teaching techniques. How does one go about developing innovative ideas? I have a suggestion: As part of the package for promotion, tenure, and merit raises, community colleges need to compel faculty members to generate articles in forms "suitable for publication." Details regarding frequency, length, and quality of papers are left to individual institutions or departments.

What makes my proposal different? Unlike most research-oriented universities, the arrangement does not call for the actual publishing of articles—writing, thinking, and creativity are the main objectives. However, if considerable time is devoted to a project, human nature almost guarantees a Herculean effort to see the article published. And as the writing skills of faculty members improve, more and more articles will find their way into journals, magazines, and newspapers; manuscripts not published, will, at the very least, be seen by colleagues. Remember, the physical publishing of a manuscript is entirely beyond control of the author—twice after I received galley proofs from computer journals, my articles were abandoned by the editors at the last moment.

Traditionally, faculty at the community college level carry full teaching loads, have limited resources, and lack graduate student assistants. In light of these obstacles, what are suitable projects to pursue? Although expertise in an area such as computer programming is beneficial, more modest qualifications will suffice. Surely every instructor cherishes a special concept, renowned individual, or period in their field. Why not review a favorite subject? Or perhaps conduct a survey regarding student, faculty, or community trends. For example, why are more males choosing nursing and females engineering careers? How does the salary structure at your institution compare to other community colleges in the state?

Here is an interesting idea: Submit a unique teaching approach to *Innovation Abstracts* or appropriate periodical

in your field. For innovations in the teaching of chemistry, I frequently target the *Journal of Chemical Education*. In a recent publication, I offered an approach for utilizing ungraded writing in the classroom. In another article, I described a method for representing isomeric structures. By attempting new teaching methods, I generate topics for papers. Currently, I am working on how to incorporate more heterotopicity into the sophomore organic chemistry course.

My confession is complete. The main purpose was not to disclose my absence of publishing for 10 years, but rather, to reveal reasons for writing papers. Today I understand why graduate faculty advisors are endowed with the ability to write—they maintain academic interests outside the classroom, regularly write papers, and edit graduate student dissertations. As for myself, improved writing skills are spilling over into thinking and creativity. And as I finish writing this article, three ideas for new papers are racing through my head.

Edwin Thall, *Professor, Chemistry*

For further information, contact the author at The University of Akron-Wayne College, 10470 Smucker Road, Orrville, OH 44667.

> On that note, won't all of you who have ever **entertained** the notion of writing for *Innovation Abstracts* consider **committing** to that today? While we have prepared an article on "How to Write an *Innovation Abstracts*" and would be glad to send it if you give us a call, your best models are the published *Innovation Abstracts* in your files. They are topically diverse and are prepared in a range of writing styles. We retain the right to edit original drafts. We remain fascinated by the array of articles we receive, and we encourage each of you to give all of us the opportunity to share your excellent teaching and learning strategies with other NISOD readers.

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Buried Treasure

The scene is a familiar one to librarians at all levels, from elementary school through college. A student arrives at the reference desk, often with a compatriot or parent in tow. One of them tries to articulate the question, the other one interrupts and contradicts the first. Finally, the librarian asks to see the assignment. Assuming there is a printed assignment available, it usually has the ominous title of "Library Project." It appears to be a scavenger or treasure hunt. In many cases, the teacher's name does not appear on the printed page. All hearts sink, and the fun begins.

Now most instructors will claim that their intentions were good, and that is probably true. How effective those intentions are depends largely on whether or not there has been any communication between the instructor and the library staff. Too often this is not the case.

My first clue is when the assignment asks students to look at a source that we do not own. Apparently, the instructor has not checked our holdings or is assuming the students will automatically find it in another library. The second clue is when the question asked is inappropriate for the source indicated. Topics as diverse as the "Teapot Dome Scandal" and "white-tailed deer" with a prospective source list including the *Infotrac* and *Facts on File* do not teach the student anything other than frustration. Treasure hunts can be fun and productive if planned well and in advance, and are likely to be finished successfully if a library orientation is given prior to the assignment.

Without appearing to make faculty jump through hoops and leap tall hurdles, I suggest that communication be opened between the teaching staff and the library staff at the beginning of the semester or before. Discuss with the librarian the intention of the assignment. Get some suggestions on possible sources to explore. Make sure the answers are really there and accessible using the source as intended. In some cases, a potentially valuable reference work is rendered almost useless for lack of a good index.

With the advent of word processing, it is easier than ever for the library staff to produce a handout suitable for any assignment. Here at Johnson County Community College we have developed specialized directions on how to locate a movie review, research a career, and find short stories, critical essays, biographical sources, and reference works on international economics. If your students would benefit from having a "crib sheet" they can put in their notebooks, so much the better. A handout with the library call numbers or locations can save them valuable time and give them a quick overall view of what the particular library can offer for that assignment.

Leave a copy of your assignment at the reference desk. In the event a student arrives without the printed word, the librarian can help determine what is expected. This is especially important for adjunct staff who often cannot be reached on campus during the day. It is also useful to the library staff members who were not present for the orientation. Night and weekend reference librarians often operate at a disadvantage when there is no other librarian to explain what happened on Wednesday afternoon.

These types of "treasure hunt" assignments have the potential of being either fun and educational, or frustrating and boring. When the assignment leads students to sources they will want to consult again, they will see the value of the exercise; when it appears to be "busy work," they will rush to complete it without taking the time to look at what they are doing.

Encourage your students to become independent learners who can use the library efficiently and not be intimidated by unfamiliar sources. Encourage them to befriend a librarian who can help them work through the seeming maze of library resources. Encourage the library staff to be part of the educational process as *team* members rather than innocent bystanders.

Teamwork is the key word here. The concept of the instructor and librarian operating together to provide an interesting, challenging, "do-able" assignment should be the underlying theme. The success of the students can be the real outcome. The library's treasures need not be buried any longer. A primary concern today is "outcomes assessment." Working together can assure that the outcome is positive.

Christine C. Godin, *Public Services Librarian*

For further information, contact the author at Johnson County Community College, 12345 College Boulevard, Overland Park, KS 66210.

Linkages: A Showcase for Innovation and Accomplishment

We invite you to participate in *Linkages*, a newsletter designed to showcase the accomplishments and innovative strategies of NISOD-member colleges. Material is gathered from press releases, publications, and summaries we receive from NISOD members, nonmember colleges and universities, and related organizations.

Through *Linkages*, teachers and administrators can discover an array of educational strategies. Past issues have included such topics as business partnerships, community outreach, creative fund-raising, enabling the disabled, environmental concerns, international connections, literacy/basic education, multiculturalism, older students, professional development, rural issues, technical programs, and women's programs. Additional topics are added as new concerns arise.

We need your help! While *Linkages* is designed to touch only the surface of teaching excellence and innovations on member campuses, we are committed to keeping it a vital mechanism for informing and inspiring our members. Currently, only a handful of member colleges send us material for *Linkages*, and many of those colleges are mentioned again and again.

We invite you—especially if you have never seen your college featured—to contribute your ideas to *Linkages*. We encourage you to share with other readers the ways in which *your* college responds creatively to the important issues facing your campus. While the concise format of *Linkages*—each article is 50 to 100 words—does not allow for extended pieces and bylines, we always include the name and telephone number of a contact person to foster one-on-one communication.

Most of all, with your input, *Linkages* will continue to convey the energy and inspiration that sparks innovation at every NISOD-member college. We look forward to hearing from you soon!

Susan Burneson, Associate Director, NISOD
Editor, *Linkages*

For further information about submitting material to *Linkages*, contact the editor at (512) 471-7545, or write Susan at The University of Texas at Austin, NISOD, EDB 348, Austin, TX 78712.

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The 5-4-0 Drill

Motivating developmental math students, including getting them to come to class, is a tremendous challenge. The 5-4-0 Drill requires only 3 to 5 minutes of grading time and encourages students to get to class on time.

The purposes of the 5-4-0 Drill are to take attendance, to get the class working immediately, and to review important concepts from the previous class session. [This idea can be applied to disciplines other than math.]

Here is how it works. One to five review problems are on the board or on an overhead when students enter the room. Self-carboned paper is on my desk for students to pick up as they enter the room. They work the problems on paper. After 10 minutes, I collect the top copy; students keep the yellow copy. Then I go over the drill/ review material. Each student then has a corrected copy of important concepts for immediate feedback and for use as a review or study guide.

Here is how it is scored. If everything is correct, 5 points are assigned to the drill, 4 points if anything or nothing is correct (remember, it is basically an attendance grade),

and 0 points if the student is absent. There are no make-up drills. The drill does not take much time to grade since I grade only to the first mistake, and the drill does not have to be returned since each student already has a corrected copy.

I use 20 drills a semester that equal 100 points, which is equivalent to a major test grade. I encourage cooperative efforts (two minds are better than one) and even have tried collecting one drill per team. (Grading time is now about two minutes.)

While it does not solve all problems (some students have not yet learned to take responsibility for their learning), it does seem to get more students to class and on time.

Barbara Adams, *Assistant Professor, Mathematics*

For further information, contact the author at Harford Community College, 401 Thomas Run Road, Bel Air, MD 21015-1698.

INNOVATION ABSTRACTS

Cooperative Learning in Mathematics

As a mathematics instructor, I often have been frustrated by the number of students who dread taking lower division (algebra) mathematics courses. Some of the most common student comments have been, "I just don't get math. I tried tutors, but they show it a different way than you"; "I never seem to understand what the teacher is trying to say"; "It's so boring"; "I'm too embarrassed to ask questions. The instructor makes me feel stupid"; and the ever-popular, "When will I ever use this in the real world?" Rather than taking on the task of enlightening them alone, I decided to experiment by creating a cooperative learning situation in the classroom.

The Experiment

At the beginning of the semester (after the first exam and quiz), I circulated a sign-up sheet which listed the hours from 8:00 a.m. to 5:00 p.m. and provided spaces in which students could identify a free hour they would have on the days the class met. From that information I grouped the students in teams of four or five and had them sit together as groups for the duration of the semester. I encouraged them to meet during their free hour in order to complete the daily homework assignments. Also, during the first 10 minutes of every class period, I would allow the group members to exchange information in order to find the solutions to problems they found difficult. At the end of this time, the students were allowed to ask those questions before I lectured on the new material. I also would pause several times during the course of my lecture (one minute or less) to allow the students to discuss parts of the lecture, even if there were no questions.

The Results

About 40-50 percent of the students utilized the out-of-class meeting idea to do their homework. For those students who participated in the process, I found that the payoff was enormous. Students became more willing to ask questions in class because they had moral support—their question came from a group of people rather than from an individual. The process seemed to eliminate the fear of asking a "stupid" question. The dropout rate decreased drastically. I saw students in groups encouraging their peers; students saw that they were not alone in

their struggles; some students asked me to talk to a group member to provide further encouragement. A network of support was formed!

I also received benefits from the program. I began using less time each class session going over problems from the previous night's homework. I also noticed that there were far fewer students coming to my office for assistance; and when they did, they would often tell me that they were going to share the methods taught to them with the rest of the members of their group. And since the groups were nonhomogeneously grouped, I found myself not always helping the same students.

Statistical analysis on my class grades also proved to be significant. Of those students who were actively involved in the group process from the beginning of the semester, not one dropped the class. The test averages of those students participating in the group process increased dramatically. Test scores produced the following comparative results:

Test Averages of Students Working in Groups vs. Students Working Alone

Students	Test 2	Test 3	Test 4	Test 5	Final
Working in Groups	86.29	83.94	86.33	75.88	79.41
Working Alone	76.44	74.63	64.88	50.06	63.89

Although the averages of both types of students declined during the semester, due to the difficulty of the material as the class progressed, the gap between the two types of students widened. Indeed, those students involved in the group process consistently outscored those students not involved.

Some Problems With the System

This system has not been without its share of problems. Even though students need the support of the group process from the onset of the class, this is also a time when

some students feel they have selected the wrong class for a number of reasons—such as, they did not have the prerequisite skills for the class, or they were taking the class for self-improvement and did not realize the amount of time the course would require. If groups are formed too soon, those students who drop the class in the first two or three weeks force a reformation of the groups, which the remaining students can perceive as an unorganized drain on their class time.

Other students, especially those who feel they are going to excel, are not easily convinced that the group process will benefit them. They sometimes feel the strain of trying to explain mathematical concepts to those not as skilled as themselves and resent the added responsibility of meeting with a group to do homework when they feel they could finish it more quickly by themselves at a more convenient time. (It is interesting, however, that many of these same students often demand personalized special help from me later in the semester when they themselves become confused.) This, added to the normal personality conflicts that sometimes arise, made it essential for me to constantly monitor the feelings of the individuals in the group for possible conflicts.

I also have struggled with the idea of fairness when it comes to assigning group projects as a mandatory portion of the grade. The idea behind assigning a mandatory group project was to force reluctant students to become involved in the group process. Therefore, the problems created by this situation seemed to outweigh the benefits. I have come to the conclusion that in the future I will make such assignments worth extra credit points, even though I always have had a strong distaste for the concept of extra credit.

Despite the frustrations, the benefits of the program far outweigh its problems, and I will continue to make revisions and improvements to it.

Biff John Pietro, *Assistant Professor, Mathematics*

For further information, contact the author at Riverside Community College, 4800 Magnolia Boulevard, Riverside, CA 92506.

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Creating Ties That Bind

A humanities elective course, Western Mythology, which focuses on ancient Greece, the Norse/Judeo-Christian background in *Beowulf*, the Arthurian legend, and the modern myths implicit in Mary Shelley's *Frankenstein*, is coordinated with tours and lectures at the Philadelphia Museum of Art. One of the course requirements is a written analysis of visual works of art and their relationships to literary works studied in class.

We preface the first museum tour with a lecture on the elements of art. One semester this lecture took place in the classroom, and the next it was delivered in the museum. Interestingly, students preferred and learned more from the lecture in the art museum with the use of original works rather than slides.

For example, after an introduction to the Greek Pantheon, students read the *Iliad*; they then visit the PMA, and the museum staff lecturer introduces them to Cy Twombley's *Fifty Days at Iliam*, a 10-canvas work in two rooms. Similarly, they analyze Rubens' *Prometheus*, both as allusion to the myths and according to its line, color, form, and composition. Lipschitz' *Prometheus Strangling the Vulture* and Sardeau's *Fall of Icarus* are studied, as well as Arthurian-period armor, a tomb cover, and several

Renaissance and Baroque representations of Greek gods and goddesses. We continually modify the course readings, paper assignments, and museum tours to respond to current topics of interest or special museum exhibits.

An interesting consequence of this exposure to the museum is that many students have returned to visit and some have become student members of the art museum after the assignment or the course is completed.

Dessa Ewing, *Professor, Humanities*
Glenn Tomlinson, *Staff Lecturer*

For further information, contact Dessa Ewing at Delaware County Community College, Route 252 & Media Line Road, Media, PA 19063, or Glenn Tomlinson at the Philadelphia Museum of Art, Box 7646, Philadelphia, PA 19101.

INNOVATION ABSTRACTS

Designing an Effective Advisory Committee

COMPOSITION: Advisory committee members should be individuals selected on the basis of:
- The appropriateness of their professional position or occupation as it relates to the specific curriculum.
- Their motivation to "roll up the sleeves" and get involved actively with the committee's work.
- Their willingness to go out and seek the involvement of other elements of society in support of the program.
- Their desire to get involved with student issues and advising.
- Their relative expertise and technical currency.

EFFECTIVENESS: An advisory committee that does not maintain a regular schedule of meetings or that meets and achieves nothing more than a "roll-call" can never be effective. An ineffective committee wastes time and other resources—for themselves and for the college.

Both individual and collective participation are essential for achieving the desired level of effectiveness. Effectiveness can be measured/increased by or as a result of:
- Establishing and keeping a regular schedule of meetings.
- Setting an agenda to be followed at each meeting.
- Developing a program that includes Plans, Actions, and Decisions (PAD). Progress can be evaluated as a measure of effectiveness, i.e., getting things planned, acted upon, and completed in a timely manner.
- Establishing and maintaining "open" channels of communication between committee members, faculty, and the local community.
- Periodic group sessions between students and one or more committee members during which students can obtain firsthand information about the "real-world" that they will be entering.
- Membership presentations to classes (arranged via the appropriate chair or instructor).
- Activities such as résumé preparation classes and job interviewing techniques conducted by committee members who are involved in employee hiring.

RECORDS: Yes, paperwork is essential to any effective effort. The ability to "track-back" is crucial. People move about. Committee memberships, faculties, and department chairs change. A coherent history of activities (completed and pending) are invaluable for continuity and sustained effort.

Minutes of each meeting should include:
- *Who* was present and who was absent.
- *What* was discussed (old, current, new business).
- *When* something is to be done, followed up on, next scheduled meeting, etc.
- *Where* the necessary resources are to support committee initiatives/actions.
- *Why* certain plans, actions, decisions are at their current condition or status.

Personal files on each committee member should include:
- Special qualifications, skills, education, etc.
- Local address and phone (home and business).
- Noteworthy accomplishments as a member. Timely letters of appreciation, etc., do a lot to retain valuable members. (Your successor might like to know who he/she can count on.)
- Record of attendance. (You may want to invite the member back for "another tour" if he/she is a consistent participant.)
- Membership on subcommittees, such as recruitment, scholarship, etc.

Note: Be cognizant of restricting factors such as Privacy Act issues, etc.

Correspondence, both incoming and outgoing, establishes a history that is often invaluable.

ORGANIZATION: Without a thorough plan, no organization will be effective. Consider the first three points (composition, effectiveness, records) before thinking about how to organize. Then, seek the best qualified to lead the organization in its pursuit. The simplest organizational structure is often the best.
- Committee chairperson. Elected by the committee itself, this person will work with the department chair to set schedules and develop agenda, and will network with other members to carry

out the duties and activities of the committee.

- Committee vice chairperson. Selected by and reports to the chairperson. The vice chair stands in for the chair in his/her absence to ensure continuity. The vice chair also should serve as liaison between subcommittees.
- Committee secretary. In some colleges this is a member of the faculty. It can be a committee member. The secretary takes notes and prepares the minutes (which should be officiated via signature of both the chair and secretary). The secretary prepares outgoing correspondence, files and maintains incoming correspondence, and maintains committee member files.
- Individual members. The other members of the advisory committee should be invited to come on board based on the overall *effectiveness* scheme that is developed. For example, if it is determined that the advisory committee will become involved in aiding students with résumé writing, a member should be recruited who has the appropriate technical skills and experience but also is knowledgeable on what it takes to write a "hire-able" résumé.
- Subcommittees. There are several schools of thought. Subcommittees should be kept to an absolute minimum. For many committees, there are simply not enough members to spread out among several subcommittees.

However, each advisory committee should have at least one standing subcommittee as the "bridge" committee. A properly constituted "bridge" subcommittee can be an invaluable tool for the faculty and college. This committee builds "bridges" between the college and local business and industry to collect and disseminate information relative (but not limited) to:

- The need to update curriculum content.
- The employment opportunities for students.
- Employee retraining/skills upgrading opportunities at the school.
- Technological advancements.

Other members of the advisory committee (not assigned to the bridge subcommittee) participate in and carry out the other actions and activities of the committee as a whole.

BUILDING ENTHUSIASM: Involving your advisory committee in such events as evaluating student projects, papers, lab work, etc., is a good way to instill enthusiasm. It is also a good way for you, as the instructor or chair, to get a feel for what is or is not acceptable "out there." And, it is good press for recruiting—the word will get out. Other ideas include:

- Most students are eager to show off what they have done, especially to one who might be a potential employer. The student "grapevine" is awesome. When freshmen hear that they will be showing their work to professionals, listen and watch closely. Enthusiasm is contagious. Quality of student work increases!
- Involve your advisory committee in the selection and review of textbooks and such. This is a proven method for building enthusiasm. Their professional expertise and experience is often overlooked.
- And, a case can be made for periodic social events that involve all players. One department conducts an annual Christmas party at the department chair's home for students, advisory committee members, and faculty. Another conducts an annual student picnic for the same, organized and sponsored by the students.

In summary: It takes sustained work and effort to develop an effective advisory committee. The interactions and relationships between committee members, faculty, students, and local business and industry must be as synergistic as possible. Any advisory committee will be as strong—or weak—as the least active member. Passive interest or apathy on the part of the faculty will quickly discourage even the most committed member.

Herbert W. Donahue, Jr., *Chair, Engineering Division*

For further information, contact the author at Guilford Technical Community College, P. O. Box 309, Jamestown, NC 27282.

A Group Approach to Multiple-Choice Tests

"I just don't do well on multiple-choice tests."
"Answer C is just as good as answer A."
"These tests don't show what I really know."

Despite spirited debate over the merits of true/false and multiple-choice tests, objective exercises remain a conventional, cost-effective way to evaluate individual students. Regrettably, many instructors and students do not fully develop connections between test performance, mastery of course content, comprehension of key concepts, and development of course-related skills.

Challenged by students and colleagues who criticize objective tests as abstract evaluative exercises vaguely connected to real learning, I began exploring alternative ways to administer true/false and multiple-choice tests. I subsequently developed a group problem-solving approach that better motivates students and maximizes individual and group performance.

This collaborative approach to objective testing suggests a creative way to encourage and develop individual commitment, confidence, and skill in group problem solving and decision making. It requires students to take greater individual and group responsibility for learning. It emphasizes collaborative methods and skills that facilitate mastery of objective information.

The steps below describe my group approach to objective testing:

1. Require each student to take the test. Instructors may choose to collect the tests prior to the next step. This is often, but not always, advisable. It is important to recognize individual achievement. But periodic refusal to evaluate an individual test puts greater emphasis on effective group problem solving. Instructors may choose to use the two-stage preliminary scoring/final grading option described below (4, 5, 6) for individual tests.

2. Require students to form their own groups or assemble in assigned groups. These groups may be established prior to the test day and may exist for the duration of the course. Allowing students to select their own groups is highly recommended. This process is an effective learning exercise in its own right.

3. Require each group to take the test as a group. Groups will develop different strategies for decision making

and conflict resolution. Instructors should monitor each group's process and suggest strategies for effective collaboration.

4. Each group submits its answers for preliminary scoring. The instructor compares the group's answers with the master key. The test is returned *without marks*. The group is told *how many* questions are incorrect. It is not told *which* questions are incorrect.

5. The group reviews its answers. It may alter its initial answers for final grading. The group discusses whether it will or will not benefit from revising its initial answers. Groups tend to reconsider the questions that caused the most disagreement. Individual answers initially rejected by the group are sometimes adopted. Groups that revise their initial answers typically fail to improve their score.

6. Groups submit tests for final grading. When possible, tests are scored in class and returned for discussion.

7. If the instructor has time and/or assistance, individual tests may be scored during class. The instructor may record individual scores and group scores on the board for comparison and discussion.

Without exception, all students surveyed recommend that other instructors incorporate collaborative testing in their courses. Most students strongly agree that collaborative testing is an effective way to learn essential course information and concepts. According to one student, "Group testing is a good way to learn new, misunderstood, or forgotten material."

In addition to significantly improved mastery of course content, students engaged in collaborative testing learn how to listen, evaluate, question, persuade, resolve disagreement, and learn from one another. Most students report markedly improved confidence and persuasiveness in expressing their point-of-view in groups. "I recommend group testing," one student says, "because it is an effective model of real-life situations we will encounter as members of the work force."

Brian P. Cooke, *Instructor, Business Management*

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The Rewards of Working Together

A collaborative project between San Juan College's Nursing Program and its campus Child Development Center resulted in benefits for both groups. A well-child assessment was provided for every enrollee at the center, thereby enabling the center to fulfill a previously unmet National Council of Early Childhood Program criterion of a health exam for each child. The students in the Nursing Program received a valuable experience in pediatric health assessment under the supervision of a nursing instructor. This experience was planned as part of the Parent/Child Nursing course in which students were enrolled.

Several months in advance of the project, a meeting of highly prepared individuals was convened for the purpose of planning. The group included Nursing Program faculty involved in teaching the Parent/Child Nursing course, the directors for the Child Development Center (CDC) and Nursing Program, and nurses from the community, including school nurses, a public health nurse, and a pediatric nurse practitioner. The group recommended that the well-child exam include a basic physical exam with vision and developmental screening, using components of the Denver II. One of the school nurses offered to handle hearing testing separately.

Health screening forms were developed for parents to complete at home. The forms solicited information on the child's health history, parental attitudes, and safety practices in the home. These forms, along with a letter of explanation, were given to parents before the project.

In order to allow them to be present, parents were given an "appointment time" for their child's assessment. Active parental participation was encouraged, as it is in all activities at the CDC. Parents were told that they should feel free to use a health-care provider of their choice if they were not comfortable having the assessment made at CDC. Only one family out of 58 decided not to participate.

Students were prepared for the experience with written objectives and a practice laboratory. Children were prepared by their teachers, who provided opportunity for medical play and who brought them to the Nursing Department to meet the project-director/ instructor, see the nursing labs and exam equipment, and discuss the assessment.

At the end of the semester, the planning group reconvened to evaluate the project. Two students involved in the experience were asked to join the group. The overall evaluation was positive. Areas for improvement were identified. All agreed that the project provided new and exciting possibilities for student learning and demonstrated that collaborative efforts can meet the needs and objectives of several college departments.

Barbara Ferriz, *R.N., M.S., Director, Department of Nursing*

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INNOVATION ABSTRACTS

What I Learned About Quality in the Classroom from a Harvard Business School Professor and a Group of Freshman Students

Einstein said that we cannot solve problems with the same thinking we used when we created the problems. For that reason I find it helpful to read journals directed to professionals outside of education. I gain new perspective and often glean useful concepts which I can translate into a human service context. The *Harvard Business Review* publishes many articles which are applicable to the community college and academia as a whole. "The Eight Dimensions of Quality," by David Garvin (1987), is one such article.

Garvin's article provided me with insight into thinking about quality through the eyes of the customer. He explains how performance, features, reliability, conformance, serviceability, durability, aesthetics, and perceived quality are factors that determine quality from the customer's point of view. Examples are directed at the business reader and often are not an easy fit for a community college. Nevertheless, I have used Garvin's principles through the years in my administrative role.

The customer compares the process and results of whatever service is being provided by measuring it against one or more of the aforementioned criteria. The customer in an educational setting may be student, future employer, or the next teacher in the teaching/learning process.

These customers compare competing services or products and make value judgments about quality. These judgmental perceptions significantly influence the decisions these customers make regarding future transactions. It does not matter whether the analysis is about a college catalog, a registration process, or the functioning of a curriculum committee. With some creative adaptation of the eight quality dimensions, those responsible for a customer-oriented process can identify amazing, interesting, and useful insights, and improvements easily can follow.

For the past two years I have elected to teach a class each semester to help me "stay close to the customer" and to help me ask good questions about processes, added value, and continuous improvement. Recently, I shared Garvin's principles with my Fundamentals of Speech class and asked the students to help me design a course evalua-tion form using those concepts. The process of designing the form was at least as useful as the findings. It forced me to question my teaching process and outcomes. It allowed me to see that even when a course is regulated by departmental policy, it can be differentiated and customized to fit student needs.

Formulating questions related to the criterion of reliability causes the teacher to think about the accuracy of what students have learned. When formulating questions about durability, the teacher speculates about how long the new knowledge or new competency will be of value. Questions related to features illustrate the elements in a class that are not required but are chosen by the instructor, based on a belief that the feature makes a difference in student learning. The data received from the student's evaluation have the potential for validating this belief.

This evaluation form is designed to gain information about quality from the student's point of view—information, when considered alongside student performance on exams and other graded measures, that can be helpful to the teacher in improving instruction. [Sample items are provided on page 2.]

To teach is to learn twice. For administrators, teaching has multiple dimensions—reviewing discipline content, practicing teaching process, and gaining insight about students and teachers and the way the college serves them. When administrators teach, they gain practical information about improving quality for students, teachers, and the college. Business and management principles, such as those suggested by Garvin, have application in the classroom as well as in the management of the college. Administrators who are willing to "go into the trenches" will discover hidden treasures of knowledge about the needs of their customers and how the college can continually improve its responsiveness to them, and in so doing, compete on the basis of quality.

Alan Scheibmeir, *Vice President for Instructional Services*

For further information, contact the author at Grayson County Community College, 6101 Grayson Drive, Denison, TX 75020.

Evaluation Form
[Sample Items]

Please mark your responses according to the following rating scale:

5 = strongly agree or **Yes**	3 = tend to agree	1 = strongly disagree or **No**
4 = agree	2 = tend to disagree	N/A = does not apply

1. Performance
   A. The teacher provided a variety of activities to ensure that each class member had an opportunity to learn.
   B. The teacher asked questions or engaged in other inquiry to determine if learning was occurring.

2. Features
   A. Videotapes, visual aids, and example speeches were beneficial.
   B. The attendance policy was reasonable.

3. Reliability
   A. The concepts, principles, and processes taught in the class are relevant, practical, and useful to my present or future professional or personal life.

4. Conformance
   A. The teacher followed the course syllabus and semester outline.
   B. The teacher was considerate while maintaining course standards.

5. Serviceability
   A. The teacher was available to me and to other students.
   B. He cared about students' success.

6. Durability
   A. The teacher seemed to stay abreast of the current scholarly developments in public speaking and to incorporate useful new knowledge into the course.
   B. What I learned in this class will be of lasting value to me as I engage in future public speaking.

7. Aesthetics
   A. I was satisfied with the formality (or lack of formality) in this class.
   B. The teacher was dressed appropriately.

8. Perceived Quality
   A. This class met my expectations.
   B. In comparison with other courses of a similar nature that you have taken at this college, how would you rate your level of learning in this course?
   _____a) I learned a great deal more than I usually do.
   _____b) I learned more than I usually do.
   _____c) I learned about as much as I usually do.
   _____d) I learned less than I usually do.
   _____e) I learned considerably less than I usually do.

Please take time, think creatively, and come up with two or three ideas that you believe would make this course or my teaching more enjoyable and/or more useful.

The Pen Pal Letter: A Separate Audience

I have stumbled across a strategy that has yielded more benefits to my students and to me than I ever could have imagined, and it is so simple. Although I use this idea with basic writing students, this strategy would be productive at any writing level.

I assign each of my students a pen pal, whom they have never met, from another section of the same class. I try to mix the pairings for sex, age, and race/nationality as much as possible. Once each week they write a letter to their pen pals which I, as postman, will deliver.

The benefits of this assignment include, but are not restricted to the following: 1) The audience is real; 2) the process encourages self-discovery, tolerance, and diplomacy; 3) it helps the instructor know his/her students better; 4) it acts as a barometer of students' writing progress; and 5) it does not require much time of the instructor.

The pen pal strategy allows students to write to an audience (other than the instructor) with whom they will frequently encounter many "real" communication problems. They often are confused by their pen pals' comments, but I never interpret meanings or give any description of their partners. Instead, I help them write back and ask clear questions that hopefully will result in clear, descriptive answers; this "helping" time becomes an unparalleled teaching moment in which we are able to deal with nearly all aspects of writing because the problems are immediate. My students sometimes work harder to make their writing clear to their pen pals than they do in their essays to me, and they experience a writing teacher's frustration when their pen pals do not write clearly. This is beneficial for everyone.

Pen pal letters also become avenues through which my students can discover basic truths about each other. Although I frequently give them general suggestions for topics, they always are free to write about anything. Some students remain guarded in their correspondence throughout the term; but for most, pen pal letters become candid and open, a kind of journal. Since students type these letters on computers, they have a copy of each letter they write, as well as the reply I deliver. The responses they give to one another are often heartwarming. Older/younger pen pals discover they both fear competing with each other for grades. Male/female and mixed-race pen

pals discover the pleasure of getting to know one another without the biases inherent in face-to-face meetings.

These letters also give me wonderful insights into my students' lives. I learn of a family's decision to pool its entertainment money to send Mom back to school. I learn of the abuse a young man suffers at the hands of his father. I learn how hard it is to be a student, parent, spouse, and employee at the same time. I learn of a woman's efforts to find her children after they were kidnapped by her ex-husband. I learn of a middle-aged man's joy at having written a passing essay for the first time in his life. Pen pal letters make me a better instructor because they allow me to understand and empathize with my students.

Frequently pen pal letters gratify unintentionally. As the term progresses, I begin to see references to writing lessons. "That last sentence I wrote seems like it might be a run-on." "Mr. Dickston would not appreciate my using the word 'things' here." "I was surprised to learn using a semicolon correctly is not all that hard." At the start of the term, my students often do not correct the errors they suspect they have made in their letters, but I delight in helping them make corrections later when they begin to care what their pen pals think of their writing.

My students know that I read each letter, and I give them credit for having completed one each week. But because I do not correct or mark these letters in any way, they do not demand nearly as much of my time as do essays. I find that my students genuinely enjoy writing to a stranger. By the end of the term, some have exchanged pictures, some have made arrangements to meet for coffee, many have established study teams, and a few have dated.

Doug Dickston, Instructor, Developmental Writing

For further information, contact the author at Mt. Hood Community College, 26000 SE Stark Street, Gresham, OR 97030.

Omaha Hospitality Hall of Fame

As a food arts instructor in a community college, I have found that there is far more to my job than teaching students. I must find students and convince them that there is no better way to invest their time and their lives than in our program. In my experience there are two types of people in food service: There are those who are merely passing through and those who want so badly to be in the profession that they will tolerate and even thrive on the long hours and the demands of the industry.

When I began to think about the important influences on my professional growth, my thoughts went back to the founders of the hospitality industry in our community. As I thought about them and the contributions they had made, the idea of establishing a hall of fame kept recurring.

After talking with others interested in this project, I helped organize a steering committee: the executive director of the Omaha Restaurant Association, the immediate past president of the ORA, the vice president of the ORA Foundation, the director of the Metropolitan Community College Foundation, chefs, instructors, restaurant community leaders, American Culinary Federation board members, apprentices, and purveyors. Subcommittees were formed: nomination and selection (chefs, owners, purveyors—all with years of experience), menu planning (apprentices and instructors), service, donations, financial, historical, program, publicity, awards and plaques, and decorations.

Early enthusiasm has indicated that we should make this an annual event in October, National Restaurant Month. Nothing but a fine dining experience will suffice for such an occasion. We have begun planning the dinner to be held in the banquet meeting rooms of the college, the site where we will commemorate the leaders of Omaha's hospitality industry with induction into the permanent Hall of Fame. Much has been accomplished: brokers and purveyors have pledged donated items; the apprentices have begun work on recipes; the first nominees have been selected; a purpose statement and bylaws have been written; and stationery for the Hall of Fame is being purchased.

The Hall of Fame will include pictures and plaques of all the inductees. Two individuals will be selected annually in each of the following categories: restaurant owners/managers, chefs, purveyors, and educators/food service directors. Each of the inductees will receive a plaque and be honored at the dinner. One of the community's most famous restaurant owners will be selected as the master of ceremonies, and apprentices and their supervising chefs will prepare the dinner.

The goals of this event are to showcase our industry, attract qualified people into its service, raise scholarship monies, honor those who have worked hard at making our industry proud, and, maybe best of all, bring owners, purveyors, educators, chefs, and other culinarians together to work on something that will benefit individuals, industry, and community. All of the students in our program are excited about the event, the challenge of the food preparation, and the hopeful prospect of being inducted someday into the Hall of Fame.

James E. Trebbien, *Instructor, Food Arts & Management*

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INNOVATION ABSTRACTS

Measuring Institutional Effectiveness: An Incremental Approach

The assessment of institutional effectiveness has received increasing attention in recent years. Postsecondary institutions have engaged in a variety of assessment activities, ranging from evaluating instructional programs and services to assessing student achievement. These assessment activities often provide information for improving instruction and services to students, as well as meeting the requirements of external accreditation and funding agencies.

Vincennes University, Indiana's only comprehensive two-year college, is not a typical junior college. More than 85 percent of Vincennes University's students are full-time, one-third live in campus residence halls, and the average age is 19.6 years. V.U. uses multiple measures to monitor institutional effectiveness, and several of its most successful measures are described here.

Orientation Survey

This survey is conducted during summer orientation and collects information supplemental to the demographic information already on the database. The survey collects three types of information: effectiveness of the university recruitment and marketing program, attitudes and expectations about life at V.U., and educational goals.

Responses to questions about the effectiveness of recruitment tell us if there are certain populations that are not being reached well, such as students who have been out of school for more than two years. They also tell us if there are major shifts in the incoming population and confirm that V.U.'s major service area contains many small towns within a 30-mile radius of Vincennes, Indiana.

Responses to questions about expectation tell us that the incoming students expect to study very hard (12 or more hours a week) and that most of them realistically expect to need some help with mathematics and perhaps with study skills. Students also optimistically expect to earn significantly higher grades than they did in high school.

Answers to questions relating to educational goals provide the best indentifier of those students who come to V.U. but do not seek an associate degree. They plan to complete a single course or a single semester or year before transferring to a four-year college or university. Various ways to incorporate this information into the required "Student Right-to-Know" data currently are being sought.

A side benefit of the orientation survey is the identification of students who participated in band, choir, drama, the student newspaper, or student government in high school. These names and addresses are sent immediately to the appropriate campus office. Students are contacted with a personal letter and/or call inviting them to participate in the corresponding V.U. activity.

Placement Testing

V.U. has an extensive mandatory placement testing program which is required of all students whose SAT (or corresponding ACT) scores are not available or fall below predetermined cutoff levels. Computerized "adaptive placement tests" are administered during the orientation. During the first week of classes, several departments administer departmental exams to ensure again the appropriateness of placement.

Student Success in Courses

At the end of each term, a comprehensive Student Success in Courses analysis is prepared. This analysis identifies courses where more than 20 percent of the students withdrew and where less than 66 percent of the students earned passing grades of A, B, C, or P. Semester-to-semester changes are noted. For multiple section courses, instructor-related and time-of-day analyses are performed on request.

This information, when combined with success-in-next-course data, success within the major at transfer institutions, and grade distribution in comparable courses at the primary institutions to which our students transfer, are important aspects of monitoring articulation agreements and transfer success, as well as safeguarding against grade inflation.

Student Success by Placement Category

All full-time students entering college for the first time are categorized by placement into one of five categories:

1. College-ready;
2. Severely underprepared in English, reading, and mathematics;
3. Severely underprepared in English and/or reading, marginally underprepared in mathematics;
4. Severely underprepared in mathematics, marginally underprepared in English and/or reading;
5. Marginally underprepared in mathematics, reading, and/or English (over 50 percent of the student body).

The proportion of students in each category who have earned a first-semester grade point average above 2.000 is a major indicator of institutional effectiveness. It is also a major indicator of the impact of policy changes (such as, removing remedial coursework from GPA computation).

Monitoring Success of Subpopulations

The progress of certain subpopulations—e.g., minority students, nontraditional students, and international students—is monitored each semester. The average cumulative GPA, the proportion with GPA above 2.000, and the average completion rate, as well as semester-to-semester retention, are reported.

Attendance Notification System

Students (and their parents) are notified in a cost-effective manner when absence from class begins to jeopardize student success. This system was described in *Innovation Abstracts*, Volume XIII, Number 28, "Postcards for Student Success."

Placement of Occupational Students

An annual follow-up survey is conducted to determine the placement of spring graduates in occupational programs. An increasing number of students are choosing to continue their education rather than to enter the work force immediately.

Success of Transfer Students

Transcripts from six baccalaureate institutions where many of our students transfer are analyzed on a two-year rotating schedule. Currently 82 to 88 percent of V.U.'s transfer students are successful, as indicated by maintaining a GPA above 2.000 at their new school. Efforts are currently underway to initiate electronic evaluation and transfer of transcripts between V.U. and two neighboring institutions, Indiana State University and the University of Southern Indiana.

"On Course" — Academic Advisement

An "On Course" system for academic advisement is in the pilot-testing stage. Course requirements for every major in a given academic catalog have been entered on the computer. A student seeking a degree can know immediately which required courses have been completed and which must yet be taken to satisfy degree requirements. A student considering changing majors immediately can know which courses already taken are applicable to the new major.

Jeanne Budig, *Assistant to the President for Research and Planning*

For further information, contact the author at Vincennes University, 1002 North First Street, Vincennes, IN 47591.

INNOVATION ABSTRACTS

Wanted: Strategic, Self-Regulated Foreign Language Learners

Why are the task demands of foreign language learning so difficult for many college-level students to conquer? What are the unique task demands associated with language learning that face foreign language learners? For many students, learning a foreign language may seem similar to other academic learning, e.g., they must attend class, assimilate new information, and budget their time for study outside of the classroom. Yet, if you were to ask those students who are enrolled in foreign language classes if they believe that learning a foreign language was a different kind of learning than that associated with other academic classes, I would suspect that they would consider language learning to be a unique undertaking.

Most college-level language instructors would affirm that the major purpose of enrolling in a language class is the development of optimal communicative proficiency in the foreign language. On the other hand, college-level foreign language students will have quite different and divergent motivations and/or goals for enrolling in a foreign language class. Perhaps some are there primarily to complete the minimum language requirement in order to receive a degree. Others may want to learn the language to better their employment opportunities. Some older learners may be in class for the intellectual stimulus. Nevertheless, this diverse group must be given maximum opportunities for success and achievement.

The Unique Demands of Language Learning

For many students the sometimes intense demand that English be used only sporadically in the foreign language class may cause stress; and instructor demands for early oral production in the foreign language may increase students' levels of anxiety. There may be student beliefs or misconceptions about how foreign languages are learned which may negatively impact their learning.

Therefore, from the onset of language learning, it is important for the language instructor to know something of students' goals and current beliefs about language study. An assessment questionnaire such as the FLLASSI (Foreign Language Learning and Study Strategies Inventory) (Dies, 1992), the BALLI (Beliefs About Language Learning Inventory) (Horwitz, 1983), or an instructor-generated questionnaire about language learning may prove to be valuable in aiding students to become more

aware of the unique demands associated with language learning. This assessment should help the instructor to aid the students by pinpointing areas where incomplete, erroneous information or beliefs exist about language learning and language learning tasks; which existing learning strategies will be applicable for language learning tasks; and a brief appraisal of the learner's current goals or attitudes related to foreign language learning. As students become more aware of themselves as learners in general, they should have more opportunities to develop appropriate, efficient, and effective strategies for dealing with the unique demands of language learning.

Self-Regulation and the Language Learner

Self-regulation refers to the degree that learners are aware of themselves as learners and the actions that they take to learn more effectively. Unfortunately, many language instructors concern themselves exclusively with delivering linguistic input in the foreign language to their students. They profess to having neither the time nor inclination for student strategy or study skills training to help their students be more successful.

Skill and proficiency in foreign language require learners to assimilate the target language through rich sources of linguistic input. However, without the student being a very active, knowledgeable, and willing participant in the process, it is unlikely that optimal foreign language proficiency will be acquired.

Consequently, foreign language learners must be given opportunities for developing strategies that will optimize the attainment of acceptable skill levels. Foreign language instructors must be attuned to their students' needs and help them develop appropriate learning strategies and study skills that facilitate the process.

During initial exposure to a foreign language, learning task demands may seem overwhelming. The development of appropriate and diverse strategies to deal with these task demands will require practice and diligence if the strategies are to become a permanent part of the learner's strategy repertoire. Once the strategies become more automatic, learners will derive the greatest benefits from them. Self-regulated foreign language learners use self-evaluation and monitoring of the effectiveness of strategy use as an important element during the language

learning process. Students then begin to realize that inefficient, ineffective strategies must be revised or discarded and replaced by more appropriate strategies.

Additionally, language instructors must help students address the emotional demands faced by many language learners. Research indicates that the oral production required during language instruction may provoke considerable anxiety. Not only must students contend with the new sound system of the foreign language, they must attempt conversations and discussions that could easily be carried out in English. Moreover, with an inefficient amount of new language vocabulary and expressions, learners may begin to believe that they are simply incapable of learning a foreign language. Even with rather high motivational levels, language learners soon may feel that they are not progressing at an acceptable rate. Again, information through assessment provided by the instructor may help to persuade learners to accept and understand their self-diagnosed deficiency more realistically. Additionally, methods of reducing students' stress and anxiety through positive self-talk, guided imagery, and other relaxation techniques bear investigation by the college-level foreign language instructor concerned with student success.

Proficiency in a foreign language usually takes many years to achieve. Normally learners will require residency in the foreign language culture in order to become optimally proficient. Research indicates that proficiency seems to be enhanced if the learner desires to integrate at least somewhat with the people who speak the foreign language and their culture. If learners bring negative attitudes toward the foreign language or stereotypes about its speakers to the classroom, it will be more difficult for them to invest the necessary effort in developing strategies needed for achieving true language proficiency. Instructors should provide avenues for helping learners to rethink old attitudes and thus improve the chance to become both linguistically and culturally proficient in the new language.

Instructional Strategies for the Foreign Language Classroom

Recommendations for increasing foreign language learners' strategies and self-regulatory awareness in foreign language classes include:

- Helping students assess their attitudes, motivations, study habits, and beliefs about foreign language learning from the beginning. Knowledge of these variables will allow the instructor to address individual student needs in order to improve students' opportunity for acquiring skill and proficiency in the language.

- Giving honest assessments of the amount of time required to learn a foreign language and the level of attainment that learners may expect to achieve at the end of a particular course of study. If the instructor has had language learning experiences (which most all have had), it is appropriate to share these insights with students.
- Encouraging learners' self-reporting of activities outside of class by means of journals. This activity should contribute to enhanced language proficiency, provide opportunity for direct feedback from the instructor, and perhaps offer a strategy for helping the students take a more analytical look at themselves and the language learning process.
- Suggesting that students exchange telephone numbers and form cooperative study groups for outside-of-class learning activities. Not only will they be able to share experiences as participants in the same endeavor, but they will be able to observe the study strategies of peers in their own quest for language proficiency.

As language instructors, we owe it to current and future students to make the language learning process a less stressful, more pleasant and productive educational enterprise.

Jeri H. Dies, *Graduate Assistant, Foreign Language Education*

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INNOVATION ABSTRACTS

Formative vs. Summative Evaluation

Faculty often voice concerns about end-of-term course evaluations. To begin with, many instruments used in the evaluative process do not clearly discern between instructor and course evaluations. Even more important, perhaps, most institutions administer such devices at the termination of the quarter/semester, and so the feedback is history, a postmortem.

I always have felt some remorse for those students I failed to touch, as well as remorse for myself for not having been more perceptive and proactive in the intervention process. The unfortunate part of this saga, of course, is that it is too late—too late for anything except a firm resolve for the future.

Remember evaluation classes? Remember terms like summative and formative? With summative, the name says it all—"sum." It is very effective for providing final statistics regarding the nature of a program and accountability assessments; unfortunately, it does not do much good for the ongoing process. On the other hand, evaluation courses also posit formative evaluation as a technique which can provide continuing feedback. Stufflebeam, a noted evaluation expert, divided the evaluative dimension into goals, design, process, and product. We as educators can actually control all four dimensions of our courses if we decide upon this alternate means of gathering information regarding our process, our product, our design, and our goals.

For me, it started this way. I wanted to know how well students were assimilating the information I was teaching. I also was interested in getting some feedback from students on my facilitation process. Moreover, I was interested in whether students were meeting their end of the "educational contract."

To achieve this goal, I devised a feedback sheet or what I called a "progress report." I used this term because I did not want students to get caught up in the jargon of evaluation, yet I wanted the whole process, my role, their role, to be reconsidered before the term moved along too far. I simply asked them to supply me with four bits of information.

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The first section of the questionnaire asked students to list or identify some things they had learned over that

period. I felt this was a useful query since it would reinforce in the minds of the students what they had been responsible for during that time. In addition, it would let me know if what I perceived as "information to be learned" was indeed the same as the perceptions of the students. Many students listed objective, quantifiable bits of information, such as syntax; a few spoke of more sophisticated cognitive achievements. As the instructor, you have the option of asking for specific or general principles.

The second portion of the questionnaire asked students if they had learned up to their potential and what, if anything, the instructor could have done to facilitate the learning process. From my perspective, this is the most important part of the report. If we are interested in intervention and dealing with potential problems, chances are students will respond to this question in a way which will provide much guidance for the instructor. Comments such as, "I'm linear; please do more book work" and "Could we do more of this, or more of that" and many other requests that students view as possible solutions to their learning impediments. One student candidly suggested that I do less talking. Using student comments, I try to alter and modify my teaching to more effectively meet learning needs.

The third question asked what they as students could have done to enhance the learning process. I envisioned this statement as a moment when the student could be honest and make a leveling comment in terms of their involvement in the course. Obviously, I want students to ask themselves the questions, "Am I working to the best of my ability?" and "Am I trying as hard as I can?" and "What more could I do?" This portion of the questionnaire might sound like a dose of reality therapy. It is. Some students just admit that they have not worked up to their standards; others respond by saying, "I'm doing as much as I can, and I'm satisfied with it." But others are not satisfied with their effort, and they pledge to reform.

As a matter of record and also as another mini-dose of reality therapy, I asked students to indicate how many classes they had missed and how often they had arrived late to class. I used this information to cross-check my official attendance roster and to remind

students who are experiencing difficulty of the importance of attendance. I simply asked, "How is your attendance; are you getting to class on time?"

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The first time I administered the feedback sheet, students asked, "What is this?" I answered, "Fill it out and let me know what kind of progress you are making in this class." I have found through subsequent use of this device that it is especially useful with students I

am meeting for the first time. If instructors teach courses where students reappear from term to term, these reports might lose some of their uniqueness and productivity.

Eugene Wittman, *Educational Consultant*

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A Call for the Revival of Homework

The oldest trick in the teacher's bag is homework—the daily assignment of written work to be submitted by the student at the beginning of the next session. Although I am a longtime instructor of history at a community college, it only recently occurred to me that homework was a pedagogical tool I might employ. My own professors had not, and homework was only a vague memory from my days in K-12.

But after years of trying to improve attendance, attention, and discussion in my classroom, I stumbled onto homework. Now it is an indispensable part of my teaching. In order to explain how homework contributes to attendance, attention, and discussion, I must describe my system for assigning and evaluating it.

Students cannot submit homework unless they attend class. They must turn in the homework at the beginning of class, and if they arrive late, they are to drop it off before they take a seat. Homework boosts attendance when students learn that failure to complete it will result in a lower grade.

Once students are there, how do you hold their attention? Attention and discussion have a symbiotic relationship. If students are speaking, then others are listening. Homework encourages and generates discussion in a classroom.

How does homework contribute to attention and discussion? What sort of homework is best? Homework needs to ask for both fact and interpretation. [For example, I ask students to list the common theories that account for the fall of Rome and explain which of them seems most plausible and why.]

Homework questions that cover all of the material to be discussed in a class session can be divided among groups of students. In that way, different groups are primed for each of the topics to be covered, more so than if the instructor simply had assigned specific chapters, or

if the chapter assignment had been accompanied by study questions but no homework.

With homework assigned, the student is more likely to believe that daily preparation is important. If homework has been prepared and submitted, the student has something to say and is more likely to speak up in class. Having responded in writing to both factual and thought questions, some students cannot wait to shine in class discussion. A substantive give-and-take among students and instructor always will be more interesting and engaging than a lecture. Several voices and points of view are better than one.

If you are still with me, you might be shaking your head, thinking about the amount of correction time involved in what I propose. I have a strategy for reducing it significantly: I letter-grade half of all papers submitted and check-only the other half. I read each paper to be checked until it has earned a C grade. Then I stop reading and put a check at the top of the paper. At the end of the term, if the student has all required checks, his semester grade for half the homework is A+, one missing check is an A, two a B, and so on. Because the students do not know when they will be letter-graded, there is a built-in incentive to submit their best work.

There is no substitute for daily preparation, and one of the best ways to ensure it, or at least to come as close as possible, is to assign homework. Students initially may grumble about the work but ultimately will feel good about their learning and be more apt to share it in class.

Jim Campbell, *Instructor, Social Science*

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INNOVATION ABSTRACTS

Learning Study Strategies Through Experimentation And Observation

In my College Survival Skills classes, students learn study skill strategies through hands-on experimentation and observation. These approaches encourage them to identify and practice strategies that work. The following "experiments" may be useful for all instructors interested in student achievement.

Experiment: Interference

Students often experience interference in learning unless they rehearse material adequately.

For this experiment, students are given one minute to rehearse the meanings of *glyt, syn, homeo,* and *tomy*—word parts taken from anatomy and physiology. Immediately, students are tested on their recall of meanings and generally score 100 percent.

Next, students have three minutes to learn 12 anatomy word parts; after all, if they are able to memorize four items in one minute, reason suggests that they can recall 12. However, students are often surprised with the difficulty they have in recalling the meanings of *lyt, meta, phag, cyt, cata, zym, itis, an, pina, ana, mit,* and *som.* Most students realize that their less successful performance on the second test results from increased interference between similar terms like *an* and *ana, meta* and *mit.* The group discusses how dissimilar terms are easier to remember and how overlearning is necessary for mastery of material. (The time allowed for rehearsal can vary.)

Experiment: Rote Memory vs. Keyword Approach

Most students use a rote method of learning new terms; however, the keyword method allows students to use their imaginations to find familiar words within words and to attach images to these words.

For this experiment students are divided into two groups; each group takes a short break while the other group is drilled over the following technical terms: *RAM, proxy, axilla, dyspnea, injunction, ketose, lipid, oscilloscope, pyrometer,* and *tachycardia.* I present only the definitions that are on one side of large flash cards to Group A and drill this group. Then Group A leaves for its break while Group B returns. Group B sees both sides of the flash cards—definitions *and* key word illustrations: a picture of

an ax under an armpit for *axilla* which means *armpit*; lips tasting fatty butter for the term *lipid*, etc.

During the next class session, the entire class is quizzed over the terms; results predictably suggest the superiority of the keyword approach for enhancing memory through cueing and visualization. Group A then views the key word pictures for the first time. Through discussion, students realize that they do not have to draw pictures for new vocabulary; however, they may begin to explore the power of the mind's eye in strengthening associations. (Both groups may retake the quiz.)

Experiment: Processing Lecture Notes

For this experiment students assess their preferred ways of processing information from lectures. All students are familiar with the Cornell Note-taking System prior to the memory lecture and are required to take notes. After the short lecture, students are told that they will be tested over the material and are divided into three groups.

Students in Group A listen to a cassette recording of the lecture. Group B rereads and recites the memory notes; students may test each other and share notes. Group C rewrites class notes completely.

After the quiz, we discuss learning styles—auditory, visual, and kinesthetic. Students in Group A may complain that they do not learn well simply by listening; those in Group C may argue that they spent their time recopying but not actually learning the material. Group B generally performs best on the quiz, perhaps because these students are actively reciting their notes aloud after visually rereading them. Students agree that whatever their preferred learning style, learning must be active. (This grade does not count; at a later date students are retested over the material when they have the opportunity to use their preferred learning styles.)

Experiment: Spaced Review vs. Massed Practice

All students take notes over a lecture entitled "Motivation and Needs." After the lecture, students must reread their notes, fill in the cue column in the Cornell notes, and start to recite their notes. At the end of 10 minutes, notes are collected from Group A; this group leaves. Students in Group B are instructed to study their class notes for an additional 20 minutes; then their notes are collected.

For the next two class sessions, students in Group A
stay 10 minutes longer to study their class notes. Both
groups have had a total of 30 minutes to study their
notes; predictably, Group A students, with three opportu-
nities to review their notes, consistently perform better.
We discuss the advantages of spaced review vs. massed
practice for most study situations.

Experiment: Categorizing to Learn

Students are told to find an effective method for
memorizing 15 vocabulary terms from a typical medical
terminology textbook. They are also to record their out-
of-class study time. If the students are able to recognize
five recurrent word parts—"ase" for *enzyme*, "cyte" for
cell, "pnea" for *breathing*, "derm" for *skin*, and "cardi" for
heart, they generally report less study time and perform
slightly better on the quiz than those students who
simply use rote memory. Some students who do not
categorize the 15 words, however, have created some
unique associations for remembering. (The terms include
*apnea, amylase, ectoderm, endocardium, endoderm, epicardium,
erythrocyte, hyperpnea, lactase, leukocyte, lymphocyte, maltase,
mesoderm, orthopnea,* and *pericardium*.)

Observations

Students are involved in many less formal observa-
tions throughout the course. For example, I copy several
exercises which contain numerous misspelled words,
usage errors, and weak vocabulary onto their computer
disks. Students are excited by the ease with which they
can correct spelling and use the thesaurus function;
however, the spell check cannot correct the far-removed
spellings or the homonym errors on the exercises, and the
thesaurus function may lead to awkward syntax if
abused. As a result, students are surprised that their
exercises still contain errors. They learn that perhaps
other strategies are still needed, including human proof-
reading!

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We are involved in other experiments and observa-
tions—learning through mapping vs. conventional
means, filtering out distractions, forming effective
mnemonics, etc. Generally, quizzes may be retaken until
students find the strategies with which they learn best. In
sum, students can learn to create useful strategies for
responding to a variety of classroom assignments.

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INNOVATION ABSTRACTS

A Grading System for Composition Papers

One minor but irritating problem most composition teachers face involves identifying a method of grading papers that is demonstrably objective, but not so rigid that it allows no room for judgment. Put simply, most composition teachers are constantly pricked with this question (often unspoken, but nonetheless present): "Why did I get a B+ on this paper instead of an A?" or "How *exactly* do you grade?" or "Why did I *get* this C?"

Of course, if the professor is using a strict numerical system, he can simply beg the question: "Well, Susy, that is pretty obvious: You have a 77 on the paper, and that translates to a C." And indeed she did. And she probably would not have the nerve to ask the next logical question: "Why 77?" But if she did, the answer might be: "Well, Susy, if you go through the paper, you will see that you lost three points in the first paragraph for three misspelled words, five points on page two for a comma splice, 10 more points for ...." So Susy will go away. But she does not accept the explanation.

Grading papers using a strict point-by-point scale is grading with mirrors. It conveys the image of pure objectivity in dealing with a craft that is subjective, intuitive, judgmental, and a complex interplay of the rational and the emotional. From origin (the best ideas for topics "come" to the writer) to end product (the reader "responds"), we are in a no-man's land of relativity. Any teacher who attempts to ensure order and fairness with numbers in the game of writing is as deluded as a physicist who attempts to apply Newtonian principles to quantum mechanics.

Even worse, doing it by the numbers tends to focus on those parts of the trade-like paper format, mechanics, and organization—that are, to some extent, governed by hard-and-fast rules, which can then be quantified by the teacher. Unfortunately, this focus distracts both teacher and student from the basics of writing: informing and entertaining. One of my colleagues, for instance, requires one-inch margins, an outline with each paper, no major mechanical errors, various other impedimentia; and he has a strict point system for enforcing those rules. While all this may contribute to Susy's appreciation of the finer points of writing (at whatever cost to the basics); while she may in fact be comforted by being able to see the rules, go by the rules, and be graded by the rules; and while he can

certainly justify Susy's C, what has happened to the spirit of her writing?

Most of us who eschew the Scylla of the numbers game risk the Charbydis of letters. When we, as most composition teachers do, use a pure letter system, complete with pluses and minuses, we are uncomfortably aware that to a certain degree it is subjective, based on sound judgment, we like to think, and fundamentally fair. (The few times I have had occasion to compare grades with a colleague, the differences turned out to be minor. In fact, on the occasions when a student has taken a paper to a jury of his peers—an appeals policy I use in composition—the jury has come close to my grade more than 80 percent of the time.)

But still: Why *did* Susy get that C? Let us be honest, if not with Susy, then with ourselves. One of the major reasons most composition teachers rely on letters rather than on numbers is precisely because the system *is* subjective. That is, it preserves what we think—correctly—is a necessary flexibility in judging a product that results, after all, from a complex combination of craft and art, rationality and intuition; and that results, in other words, from following the rules and yet knowing when to bend or even break them.

So I am about to propose a hybrid—combining numbers and letters. It is no panacea, but it still offers several advantages over either used exclusively. To begin, this hybrid's numbers are an illusion; that is, while the system provides a measure of objectivity and some comfort for those students who can be so comforted (thus perhaps defusing Susy before she ever gets to the office), it still preserves flexibility. In essence, what I propose is a camouflaged letter system. Finally, though, as the system is weighted, it has two other advantages: It provides a certain order and objectivity to the grade; but because the work earns points on a sliding scale tied to the writing process, it also underlines the relative importance of the various steps in that process. It works like this.

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I explain that each paper is graded on a 100-point system, and I carefully show how the points earned convert to the final letter grade. Usually, my conversion scale is as follows:

100-90	A to A-
89-75	B+ to B-
74-60	C+ to C-
59-50	D+ to D-
49-0	F

Note, I said "usually." This is the first advantage of this system: You can arrange the scale any way you want. I, for instance, usually make the B and C range more generous than the extremes, because that arrangement basically conforms to the grade distribution in most composition classes—almost an even split between B's and C's, with a sprinkling of A's, D's, and F's. In short, my point system mirrors the reality of my letter system, and, in essence, helps ensure that it stays that way. It is important to ensure that the numbers mirror your judgment, not dictate it.

Which brings us to the heart of the system: how the writer earns the points. The system preserves flexibility in the major areas, it allows precision in the minor areas, and it preserves the balance between major and minor steps in the writing process and underlines the hierarchy of values inherent in writing. In sum, it stresses that *what* writers write is much more important then *how* they write; yet, it still forces attention on the latter since, cumulatively, Susy can lose up to half the points available if she does not write in a satisfactory manner.

The point scale is as follows:

Format	10 points
Mechanics	15 points
Readability	25 points
Content	50 points
Total Possible	100 points

In essence, we have a sliding scale of value, where a good limited topic and excellent detail in its support are rewarded with the majority of the points; where readability (I am especially concerned with organization, transition, minimizing wordiness, and elimination of choppiness) is rewarded substantially, not as much as content, but commensurate with its importance in getting a message across; and where mechanics and looks, while of relatively less importance, still total a quarter of the grade.

The benefits are substantial. First, 50 points in the content and 25 points in the readability section allow substantial room for judgment. Next, points can be deducted in the latter two areas only to a certain point, but precisely, error by error.

This does several things: It provides at least some "by the book" objectivity where it is possible to do so; and,

frankly, it avoids two extremes of grading which both feature over-reliance by the teacher on mechanics. On the one hand, with this system you will be less tempted to give a rotten paper a C simply because it is free of mechanical errors—mainly because the system forces you to pay attention to basics, too. On the other hand, it positively inhibits an automatically low grade *just* for poor mechanics or format.

My 16 years of experience support my belief that if Susy loses substantial points in the minor areas, 99 times out of 100 she is going to also lose points because of major problems in content and readability. In all cases, however, this system reinforces the point that really *bad* papers suffer from *basic* problems. So if Susy flunks, she will not be able to take refuge in this rationalization: "Well, I have never been any good at this grammar stuff."

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In other words, good, bad, and mediocre papers will earn the grades they deserve. This system just makes it a little clearer, if Susy cares to look, about how her paper earned her that grade. It also preserves your basic prerogatives of judgment, while circumscribing them just enough to reinforce the essential motion of a hierarchical writing process that *no* one—teacher, student or professional writer—can ignore.

This system also allows various exceptions and adjustments. You can, for instance, implement this system gradually, as a refinement of your standard letter grading system. (I introduce it in Comp I only toward the end of the semester, for the last few papers. By that time the students have grown accustomed to me, to writing, and to my grading; this scheme then fine tunes and reinforces everything that has gone before.) The system is not a panacea. However, at worst it can help keep Susy from your door, and at best it may actually help clarify the writing process for her.

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A Useful, and Rather Painless, Writing Assignment

Writing across the curriculum is not only politically correct, it is a good idea—provided the assignment is meaningful and useful, both to the student and to the teacher. On the first day of class, I give my students two writing assignments:

1. Tell me about your experiences with mathematics that helped form your attitude about the subject; you may go back to your high school or grade school days.
2. Tell me about yourself—your major, your goals, your life outside school—but nothing too personal.

The assignments may be *any* length, but at least two words ("Math stinks" qualifies, but I would like to hear more). Grades are: ✓ (you did it); ✓+ (I was impressed); ✓++ (I was very impressed); and ✓+++ (you got help from a deity). These assignments quickly let me get to know the students as individuals. Moreover, I discover intelligence in students who are not very good in mathematics. I tend to view them more favorably once I realize—and this may be heresy to some—that being smart and being good in math are not the same thing, regardless of the messages I got from most of my own teachers.

Often, these assignments reap serendipitous effects. For example, one of the best students, a man in his mid-twenties, in last summer's college algebra class, had failed the course [taught by a different instructor] the preceding spring. His essay about that experience was so moving, insightful, and pertinent to the affective domain that I asked him if I could submit it for publication. He agreed. The entire essay follows, with only minor editing.

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I have been a student at this college for the past three years. In this time, it has been my experience to encounter teachers from various schools of thought when it comes to principles and politics in the classroom. Personally, I learned at an early age not to rock the boat in certain situations—although there is nothing wrong with disturbing the water slightly.

During spring 1992, I enrolled in a college algebra class. From the very first day until the final exam, there was an obvious lack of concern on the part of the instructor for a quality education for 85 to 90 percent of the students. And of the 10 to 15 percent who did receive some display of compassion towards their advancement in mathematics, I only can guess that half of them possessed a natural love for numbers. These conclusions are based on short but pertinent conversations with other students. Obviously, without access to the teacher's grade book, I have no way of knowing how accurate my views are in relation to my observations. Still, allow me a few lines to document the other factors which contributed to my opinion of this instructor.

First and foremost, each class was one continuous rush of madness from the first second to the last, as if we did not have enough time. We never got answers to our questions which she felt were inappropriate. She almost always waited until the last two or three minutes of class to ask if we had any questions. Problems were solved on the overhead and erased before we caught up and before she was sure we understood what was being done. In retrospect, I figure that the most disturbing trait of my instructor was an inability to read the faces of her students and to notice that a great majority of us truly were lost. I am sure there is no such course as Face Reading 101, but surely a teacher with a real desire to teach knows a little about the subject.

Nevertheless, as time passed, I began to understand why this teacher could not read our faces, why she did not know the names of more than three of the students, why she could not slow down and teach. It was because of fear, the fear that she really did not understand how to win back a room full of lost students, the feeling that she might expose her own fears to those of us who wanted so desperately to understand what started out to be a simple college algebra class and was now chaos.

I am a fair student with a love for math. I appreciate the challenges and concepts of numbers. And, I understand that not all teachers will yield to my expectations. Still, I can recognize a bad apple when I see one. This job should not be about teaching; it should be about caring, about helping, and about working toward a goal called *education*, in every sense of the word.

Anyone can pick up a book and talk for three hours in front of 30+ students, but the students at our college want more. It is important to many of us that a teacher has a

spirit and makes a commitment to give us a 100 percent return on our investment. Teachers should know when to push and when to pull, how to motivate and how to evaluate. They should care enough to extend their best effort. And on days when they just do not have their best to give, they should be strong enough to say, "I need your help to make it today."

Dennis Gittinger, *Instructor, Mathematics*

Curtis Martin, *Student*

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A College Council With a Difference: A Twist to the Committee Structure

The college council at Canadore College is unique. It includes 24 elected members divided into four task groups: eight faculty, eight students, four administrators, and four support staff. The council's mandate is to advise the president by making recommendations on academic and policy issues affecting students. Today, in a college workplace emphasizing collegiality, consultation, and integration of functions, the council takes an innovative approach to decision making.

Each task group includes at least five members from the council and one representative from the faculty, student body, administration, and support staff. Each group elects a facilitator to coordinate strategies for task completion. The task groups may recruit external resource people to provide extraordinary or special skills or knowledge. These external resources may be drawn from other college council task groups, the college staff, or the community-at-large. The facilitator is responsible for their orientation.

As an issue originates within the college community, a council member presents it to the council in the form of a proposed task. The council determines the validity of the task (as defined in its mandate). Then tasks are prioritized and assigned in sequence to the individual groups for their discussion. When a group completes a task and is assigned another, the original group of five members remains, but the facilitator and the external resources usually change. Recommendations from the task groups are adopted by the college council and are forwarded to

the college president. The president presents recommendations to the Board of Governors for consideration.

This task group structure facilitates the effective and efficient use of human resources. Task resolution becomes a shared process throughout the college and community.

George Burton, *Associate Registrar*

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Advancing and Celebrating the Art of Teaching and Learning

Chemeketa Community College's Opportunity Center has enjoyed resounding success as a catalyst for an "instructional revolution." The seeds of the Opportunity Center were planted in 1989, when a small group of managers began to take deliberate steps toward focusing the "college conversation" on teaching and learning. "When we're all talking about teaching, we're all thinking about teaching, and that moves us to care about what happens in the classroom."

To help focus on the project, the group of managers initiated three new activities: Talking About Teaching, Thursdays at Three, and Chemeketa Lectures. Talking About Teaching is a monthly forum which allows staff from throughout the college to gather and talk informally about teaching and learning. Thursdays at Three is a weekly staff gathering held purely for fun and socialization. Chemeketa Lectures are "our own presenting to our own" (and the public) in their specific areas of expertise. These activities were "mechanisms which were meant to say—and said—that it's important we talk together, it's important that we talk about teaching, and it's important that we act on what we say."

These grassroots efforts to change the college focus resulted in support and action from the college administration. Administrators articulated their commitment to a focus on teaching and learning through directors and deans, and established a $10,000 Teaching Excellence Fund to provide training opportunities.

Ideas for what a teaching and learning center should look like were garnered from several retreats. Two individuals were recruited to head the center. Administrators knew the faculty wanted a place to gather and share ideas, but they balked at the idea of a staff development center. Rather, they wanted an activist center.

Twenty-five instructors were selected to serve as "shepherds" and to survey their colleagues: "What would enhance your teaching?" "What barriers have prevented you from becoming the instructor you want to be?" "What can you give to the teaching revolution at Chemeketa?" The shepherds solicited information through casual conversations and written questionnaires, and reported the results to the directors. The responses were charted and trends identified. Some strategic planning—defined as "looking at where you're going, looking at what you've got, then looking at, regardless of what you've got, how you're going to get there from here"—began.

In Chemeketa's case, strategic planning meant adopting multiple tracks for the Opportunity Center—the more offerings, the greater the interest. Tracks included targeted trainings, individual consultations, social gatherings, grants, a staff resource room, and a quarterly newsletter. Perhaps the most significant track was "affinity groups," not just work or study groups.

Affinity groups meet to discuss such topics as accelerated learning, collaborative writing, integrated instruction, classroom assessment, and "food for the soul." "We can get together and say, 'this is how it worked for me,'" one faculty member noted. "Then I can visualize what something will look like in my classes. Talking fills in that picture." Another said, "Teachers are in an isolated business; I think the center works because it gives people recognition and honor for what they do."

New ways of teaching are introduced through the center. For example, linked courses have brought basic study skills and writing and communication skills into the automotive lab. Student retention has improved, and higher grades have been documented in the automotive technology program. A writing and literature instructor credits the center with reshaping the way he uses critical thinking and writing techniques in the classroom. He believes the center is a unique blend of enthusiasm, collaboration, and innovation: "When those three things are all there, something happens."

A sense of community has developed among the instructors who are involved regularly in the center. There is a strong commitment to teaching and learning at all levels of the college. The teaching and learning thread is everywhere now—it is implicit in our values. We think about teaching and learning in the classroom and when we are hiring new faculty and planning for the future.

Kim Christiansen, *Publications Specialist*

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Management Review: Publishing Student Essays

Essays by students are often read only by the teacher and the student. Frequently, the content of these essays is worth sharing with others. I developed a publication, *Management Review*, that has become the vehicle for publishing the essays written by my students.

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At the beginning of each semester, students in Principles of Business Management are asked to select a management topic. Their assignment is to research the topic and write a short article (2 or 3 pages). The article may describe a project, develop a case study, explore a work environment, or offer a creative idea. Students must submit a hard copy of their essays and a floppy disk. (Most students have completed Fundamentals of Information Systems and developed microcomputer and WordPerfect skills.)

The best articles are selected for publication in the *Review*. The typeset galley proofs are returned to the students for revision and proofreading. The final document is edited and prepared for printing. The college reprographics department copies, collates, folds, and binds the publication.
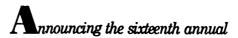
❖

Students bring amazing creativity to their articles. For example, one article related the behavior of bees in a colony to the unity of command principle; another demonstrated the complex array of management skills required of a combination mother, wife, student, and homemaker.

Students are proud of their accomplishments. Many students request additional copies of the *Management Review* for family members and employers. Copies are circulated among the faculty and administration at the college, as well.

James Armstrong, *Professor, Business Management and Administration*

For further information, contact the author at John Tyler Community College, 13101 Jefferson Davis Highway, Chester, VA 23831-5399.

Announcing the sixteenth annual

International Conference on Teaching Excellence and Conference of Administrators

May 22-25, 1994 ★ Austin, Texas

The National Institute for Staff and Organizational Development (NISOD)—based in the Department of Educational Administration, College of Education, The University of Texas at Austin—celebrates excellence in teaching and leadership through its annual conference, which attracts more than 1500 teachers and administrators each year. The event, co-sponsored by the League for Innovation in the Community College, will be held at the Hyatt Regency, Four Seasons, and Radisson hotels.

Monday, May 23
★ Ann W. Richards, *Governor of Texas*

Tuesday, May 24
★ Wilhelmina Delco, *Texas House of Representatives*

Wednesday, May 25
★ Tom Curley, *President and Publisher, USA Today*
★ Recognition of 1994 NISOD Excellence Award recipients. *Presiding:* John and Suanne Roueche, *The University of Texas at Austin*

CONFERENCE OF ADMINISTRATORS

Monday, May 23
★ **Luncheon,** *12:00-1:30 p.m.*
Jacquelyn Belcher, *President, Minneapolis Community College, Minnesota*
★ **Afternoon session,** *2:00-4:00 p.m.*
Robert A. Gordon, *President, Humber College of Applied Arts and Technology, Ontario, Canada*

Tuesday, May 24
★ **Morning session,** *10:00 a.m.-12:00 p.m.*
Walter Bumphus, *President, Brookhaven College, Texas,* and Jan Brobst, *Vice President of Institutional Advancement, Brookhaven College, Texas*

★ **For more information,** *contact Suanne Roueche, Director, NISOD, at 512/471-7545.*

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