Essays on Teaching Excellence

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Relating Student Experience to Courses and the Curriculum

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Asking students to relate their personal experiences to the curriculum can actually enhance learning and further the outcomes of a liberal education rather than squander precious instructional time as many instructors often assume. A liberal education influences behavior less by direct application to experience than by instilling a habit of routinely reflecting critically on our experience within the broader frames of reference acquired through such an education. If this is the case, then instructors need to provide students occasions to reflect on their own experiences through the lenses of their disciplines during classroom and study time.

Further, what we know about learning points to the initial state of learners--their prior knowledge and experience with the course material at hand--as the starting point of instruction. Effective instruction builds upon this experience deliberately because functionally individuals will interpret and incorporate new ideas through their existing frames of reference. And according to Kolb's well-known learning model (1984), individuals form abstract concepts and generalizations by reflecting on experience. These concepts then become working principles, the implications of which individuals test in experience and subsequently modify after further experience and reflection. Good instruction guides students consciously through this process.

Following are specific suggestions on how instructors can integrate

personal experiences and course material to promote student learning.

Planning Integrating students' personal experiences and course material begins in the planning stage as instructors articulate their goals and objectives for the course. Along with those related to course content, analytical skills, research methodologies and the like, critical reflection on personal experience through the discipline becomes another explicit goal of instruction and a desired student outcome. In designing the course, the instructor will select a variety of methods--some of which we describe below--to further this outcome.

Instructors also need to help students see the possible connections between their experience and the course material. Conceptualizing the course in terms of broad-based themes that run through an array of phenomena (including students' experiences and the course material) may help students see these connections. It will also provide them wider frames of reference for subsequent reflection.

Planning of this kind is easier, of course, if instructors know the students they teach. As they teach, instructors can explore students' experiences through personal data sheets, class discussion, and individual conferences. They might also keep abreast of student life and culture through campus newspapers, attendance at campus events, general reading, and informal conversations with students. As instructors come to know and understand the students in their classes better, they will be able to draw stronger and more relevant comparisons between students' experience and the curriculum.

Teaching Strategies A range of teaching strategies help students integrate their personal experiences and course material. By creating explicit opportunities for students to draw connections between their experience and course materials and then providing them with tools for reflection, instructors can help students internalize a habit of critical reflection. Well-chosen comparisons and analogies draw from students' immediate experience, ring true, and have cognitive utility. They can engender minor epiphanies on which deeper, more analytical understanding can grow. A good questioning strategy can lead students from raw and immediate personal experience to a

broader and more sophisticated understanding. Well-designed case studies are an effective way of linking experience and theory and giving theory immediacy. They can also help students understand their own experience, using the case study as a lens through which to view analogous situations they may encounter later. Journals provide a natural vehicle for reflection on the course material in light of students' experience. Entries can be structured or open-ended, both forms of which force students to engage more personally and directly with the course material and to consider its implications for themselves. Simulations and games draw students towards and into the course material, literally forcing them to experience it. Debriefing such experiences critically provides the analytical tools students will need to reflect upon their own experiences. Finally through experiential learning students engage in an actual work or field experience outside the confines of the classroom but as part of their regular coursework and then reflect upon it in a manner consistent with the discipline at hand.

These teaching strategies vary in the degree to which they incorporate actual student experience. Comparisons and analogies incorporate student experience indirectly by drawing comparisons between the course content and student experience or by asking students to do so. By contrast, in experiential learning students take part actively in an experience as a course requirement that the instructor consciously weaves into the course material. But whether the strategy involves a simulation, a case study, or an actual field activity, the strength of the strategy lies only partially in the nature of the experience itself. Even more important is the guidance and support provided to students for critical reflection on the experience. Using Kolb's model, reflection is the critical link between concrete experience and the formation of abstract concepts and generalization by which we order and regularize experience. As a result, instructors need to plan carefully reflective exercises that employ the methods of critical inquiry peculiar to their discipline. Through guided reflection of this sort, students learn how to learn from experience, not simply the particular classroom or field experience, but from any experience.

Evaluation If the ability to reflect critically on personal experience through the discipline is a desired outcome of instruction, teachers need to develop ways to evaluate this ability. Well-designed

assessment instruments provide opportunities for students to practice new skills and abilities and to enhance their learning. They also permit instructors to assess the effectiveness of instruction and the extent of student learning. Three major guidelines for evaluation described below insure the integrity of course planning and evaluation, increase the likelihood of student success on assignments, and provide consistent and fair assessment criteria:

* Tie student assessment to specific course objectives.
* Provide detailed assignments in writing that clearly specify your expectations.
* Clearly specify in writing how the assignment will be evaluated at the time it is assigned.

These general principles apply to virtually all types of evaluation, but they are particularly important for assignments that explicitly require students to relate their experiences to the course material. Such assignments are apt to be nontraditional and hence unfamiliar to students. Unless structured properly, they may invite aimless confessionalism with little reference to critical inquiry in the discipline. As a result students will not have had the learning experience intended by the assignment, and instructors will be at a loss to evaluate completed assignments so different from their implicit expectations.

Following are two specific examples of assignments in which students must relate their own experiences to the course material:

Literature and Life Project. An instructor of an introductory course in contemporary literature specifies the following as one of her course goals: to see literature as participating in and dialoguing with a larger cultural system. To evaluate this goal she asks simply that students explore the extent to which the readings have affected them. In her written evaluation scheme, she describes carefully assignment options corresponding to conventional grade levels. For example, students electing the "C" option need only identify the impact a work of literature has on them, while those choosing the "A" option must not only identify their responses but analyze and act upon them. She also spells out the time and page requirements for each option.

Service Learning Project. In a labor economics course investigating the role of labor in the economy, students work for an organization that helps the unemployed find appropriate jobs. To assess several related knowledge, skills, attitude and values, and service objectives, students submit three assignments associated with this experience: an organizational profile; a journal in which students reflect upon and analyze their experience; and a final paper in which students relate their experiences in the organization to the concepts, models, and theories of labor economics. The instructor distributes evaluation criteria for each assignment.

Summary Frequently instructors view the relationship between student experience and the course material as a trade-off. Allowing students to air their personal experiences in class takes away from the time the instructor has to "get through the course material." In fact, purposefully integrating student experience into courses and the curriculum can enhance the effectiveness of instruction. It can help students broaden their frames of reference and reflect critically on their experience, thereby furthering the broader outcomes of a liberal education.

Suggested Works to Consult

Hutchings, P., & Wutzdorff, A. (Eds.) (1988). *Knowing and doing: learning through experience*. San Francisco: Jossey-Bass.

Jackson, K. (Ed.) (1994). *Redesigning curricula: models of service learning syllabi*. Providence, RI: Campus Compact.

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The Critical Match Between Motivation to Learn and Motivation to Teach

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Incongruence Students will be pleased with a course if educational outcomes match the expectation they had for taking the course in the first place. They may even experience extra delight if outcomes exceed their expectations, but they will surely be disappointed to the extent that the outcomes fall short of expectations. One way professors strive to avoid such disappointment is by providing a syllabus that lets students know in advance what they can reasonably expect. However, even a very clear syllabus won't avoid disappointment if there is a fundamental difference between what professors and students believe their courses ought to achieve. In a recent essay about the different cultures of professors and students, Lars Eric Larson (1993) discusses the problem of professors and students perceiving course purposes differently. In Table 1 we outline five perceptual conflicts that we observe in course interactions. They are based on some of the original professor/student differences identified by Larson. (See Table 1.)

Motivation of Teaching and Learning Behaviors Martin Covington (1993) and his research collaborators have for many years investigated motivations underlying learning behavior. Their conclusion is that course grades and self-image are far less important in motivating student learning than a student's own self-estimate of ability. In other words, the strongest motivation for learning is the

perception by students that their personal abilities will be maintained or improved. Even though an expected course grade might be low, learning motivation will remain high if students believe that necessary personal abilities are being enhanced. Although students enrolling in a specific course may verbalize a diverse set of motives for doing so, they are quite homogeneous in their overall desire to enhance personal skill and ability. Most college students see education as a way to enhance their positions in life. Given such a promise, students generally respond positively to learning challenges; but, as we know, they are easily bored if this promise weakens or is lost.

Students take a broader view of teachers than mere 'knowledge transmitters." They evaluate course experiences by diverse criteria such as effect on grade averages: parental expectations: peer attachments; perceived importance for subsequent courses: usefulness in later life and career; and, yes, interest and entertainment content. However, we believe that their over-riding, long-range concern is the appropriateness of course knowledge to personal growth and plans for skill formation relevant to their career aspirations.

A stark reality of higher education is that it is difficult for students to see direct links between course work and ultimate payoffs, particularly with regard to liberal arts endeavors. So how can the potential energy of student interests be engaged'? Our own teaching experiences and understanding of learning show that student motivation to learn can be dramatically influenced by course structures, teaching methods, and instructor attitudes. Thus, we advocate institutional changes that encourage pedagogical modifications- that is, modify teacher attitudes and incentives as a means of ultimately stimulating student motivation and learning outcomes.

Traditionally, faculty members have viewed course material as something to be "transmitted to students." This is typically accomplished by lectures and demonstrations. The professor knows the material, and the students must learn it-a clear and simple learning model. There is a powerful underlying cultural environment that supports this style of teaching, particularly the pervasive notion

that the student is solely responsible for educational outcomes, not the professor. That is, professors profess while students "assimilate" and get tested on the amount they retain. Students often feel that this pedagogy grades them for performance unrelated to personal growth and development of their abilities.

We believe that there already exists a broad-based awareness of this cultural predicament. We also acknowledge that we account for only two small voices within a very large chorus of advocates for adoption of "more active" learning methods. The problem is how to begin redirecting the inertial forces of our academic culture? How can the teaching/learning motives of professors and students be made more congruent in the existing environment? In our opinion, what is needed at the discussion table is general exposure to a wide variety of specific, successful tactics. We need to witness how various institutions are solving this problem- implementing new incentive systems that encourage faculty members toward pedagogic innovation, especially active learning options.

What we propose is more than bootstrapping more enthusiastic classroom presentations. Reform involves considerable revamping of traditional teacher incentives and eventual cultural shifts away from the incongruent attitudes displayed in Table 1. Given the great difficulty of making large cultural changes quickly, we have developed a special program that can be embedded within a traditional college curriculum. Our hope is that what is first *embedded* will eventually become *integrated,* sparking shifts in pedagogical preferences. The program is called "The Practicum Program" and is described in detail elsewhere (Teeples & Wiebman, 1997). It provides a framework in which it is appropriate and necessary for professors and their students to be jointly responsible for course content while not seriously jeopardizing the strong cultural norm that professors ought to exercise dominant control over course coverage.

Table 1 Five Key Dimensions of Student- Professor Interactions

	Dimension	Respondents	Response
1	Control	Professors	Feel authoritative and that they should exercise full course control.
		Students	*Recognize that they are clients, however, feel that paying clients should share in control.*
2	Knowledge	Professors	See acquisition of knowledge as an end in itself.
		Students	*See knowledge as a means to an end.*
3	Method	Professors	Match teaching style to the type of material being taught.
		Students	*Judge teaching styles by criteria that are unrelated to course content.*
4	Motivation	Professors	Feel a student's enrollment in course is tantamount to being motivated.
		Students	*Feel the professor is compensated, at least in part, to motivate them to learn.*
5	Purpose	Professors	See narrow purpose for taking a specific course, e.g.. learning per se, and preparation for follow-on courses in the discipline.
		Students	*Have varied purposes, e.g.. course fits personal schedule, is a required course, raw curiosity, heard that teacher was interesting, wanted to he in course with a friend, parents insisted.*

An institutionally supported practicum program is just one tactic for implementing active learning methods and making the motives of professors and students more congruent. Fostering undergraduate student/faculty research is another approach. In general, the incentives should cause professors to feel more responsible for the educational outcomes of their students. By "incentives" we do not refer exclusively to monetary rewards and reimbursement. If a course goal is to complete a project for an outside client, the professor's reputation (as well as the students' and the institution's) is a strong, congruent incentive toward effective learning. In joint projects, the

professor is more likely to focus on each team member and make sure he or she performs well enough to meet or exceed criteria agreed upon by the group. Active learning approaches that foster teamwork are especially motivating because the professor can expect social pressures from within student groups to assist in monitoring individual performance levels. Above all, active learning approaches cannot appear to be pointless. The exercises ought to be aimed at clear learning objectives. A connection to students' expectations about improvement of personal abilities is paramount.

In the practicum setting, coursework is usually arranged so that professors and students share similar risks. Students are investing for skills relevant to their futures, and the professors see the project as facilitating professional advancement. Compared to lecturing, the teaching/learning motives are more congruent.

But how plentiful are such opportunities for consistent active learning at the undergraduate level? Other than perhaps some satisfaction from improved educational outcomes, what is a professor's payoff from implementing more active learning pedagogies? What if the tactic causes professors to relinquish some course authority and be exposed to greater risk of professional advancement?

Educational research seems to signal some clear benefits to students from the kinds of pedagogical changes that we are advocating. At least we can say that student motivation is elevated when belief runs high that students are gaining the skills and experience that employers and graduate schools are actively seeking. Positive feedback from these "outside sources" and former students clearly reinforces such belief. Undergraduate professors in our program have been quite successful in making this kind of teaching serve at least some of their scholarship aspirations. The question is whether this source of improved motivation can be made more consistent with the educational goals and professional motivations held by professors.

Conclusion Our personal experiences convince us that when courses are designed so that professors and students share responsibility and work together to achieve common goals, there are very positive effects on educational outcomes. Not only is learning

more uniformly superior but harmonization of teaching/learning motives also improves the emotional quality of the educational experience for both professors and students.

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Developing a Philosophy of Teaching Statement

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When asked to write a statement on their philosophy of teaching, many college teachers react in the same way as professionals, athletes, or artists might if asked to articulate their goals and how to achieve them: "Why should I spend time writing this down? Why can't I just do it?" For action-oriented individuals, the request to write down one's philosophy is not only mildly irritating, but causes some anxiety about where to begin. Just what is meant by a philosophy of teaching statement anyway?

In the current academic climate it is likely that most faculty will be asked for such a statement at some point during their careers. The emphasis on portfolios for personnel decision making, new commitment by institutions to the teaching mission, and the tight academic job market have stimulated more requests of college teachers to articulate their philosophies. At many colleges and universities the philosophy of teaching statement is becoming a regular part of the dossier for promotion and tenure and the faculty candidate application package. Such statements are often requested of nominees for teaching awards or applicants for funds for innovative educational projects.

Besides fulfilling requirements, statements of teaching philosophy can be used to stimulate reflection on teaching. The act of taking time to consider one's goals, actions, and vision provides an opportunity for development that can be personally and professionally enriching. Reviewing and revising former statements of teaching philosophy

can help teachers to reflect on their growth and renew their dedication to the goals and values that they hold.

The Format of the Statement
One of the hallmarks of a philosophy of teaching statement is its individuality. However, some general format guidelines can be suggested:

- Most philosophy of teaching statements are brief, one or two pages long at most. For some purposes, an extended description is appropriate, but length should suit the context.

- Most statements avoid technical terms and favor language and concepts that can be broadly appreciated. If the statement is for specialists, a more technical approach can be used. A general rule is that the statement should be written with the audience in mind.

- Narrative, first-person approaches are generally appropriate. In some fields, a more creative approach, such as a poem, might be appropriate and valued; but in most, a straightforward, well-organized statement is preferred.

- The statement should be reflective and personal. What brings a teaching philosophy to life is the extent to which it creates a vivid portrait of a person who is intentional about teaching practices and committed to career.

Components of the Statement The main components of philosophy of teaching statements are descriptions of how the teachers think learning occurs, how they think they can intervene in this process, what chief goals they have for students, and what actions they take to implement their intentions.

Conceptualization of learning. Interestingly, most college teachers agree that one of their main functions is to facilitate student learning; yet most draw a blank when asked how learning occurs. This is likely due to the fact that their ideas about this are intuitive and based on experiential learning, rather than on a consciously articulated theory. Most have not studied the literature on college student

learning and development nor learned a vocabulary to describe their thinking. The task of articulating a conceptualization of learning is therefore difficult.

Many college teachers have approached the work of describing how they think student learning occurs through the use of metaphor. Drawing comparisons with known entities can stimulate thinking, whether or not the metaphor is actually used in the statement. For example, when asked to provide a metaphor, one teacher described student learning in terms of an amoeba. He detailed how the organism relates to its environment in terms of permeable membranes, movement, and the richness of the environment, translating these into the teaching-learning context by drawing comparisons with how students reach out and acquire knowledge and how teachers can provide a rich environment. Grasha (1996) has done extensive exploration of the metaphors that college students and teachers use to describe teaching and learning. An earlier classic that also contains an exploration of metaphors of teaching and learning is Israel Scheffler's *The Language of Education* (1960). Reinsmith (1994) applies the idea of archetypes to teaching. Such works might be consulted for ideas.

A more direct approach is for teachers to describe what they think occurs during a learning episode, based on their observation and experience or based on current literature on teaching and learning. Some useful sources that summarize current notions of learning in a very accessible way are contained in Svinicki (1991), Weinstein & Meyer (1991), and Bruning (1994). Teachers can also summarize what they have observed in their own practice about the different learning styles that students display, the different tempos they exhibit, the way they react to failure, and the like. Such descriptions can display the richness of experience and the teacher's sensitivity to student learning.

Conceptualization of teaching. Ideas on how teachers can facilitate the learning process follow from the model of student learning that has been described. If metaphors have been used, the teacher role can be an extension of the metaphor. For example, if student learning has been described as the information processing done by a computer, is the teacher the computer technician, the software, the

database? If more direct descriptions of student learning have been articulated, what is the role of the teacher with respect to motivation? To content? To feedback and assessment? To challenge and support? How can the teacher respond to different learning styles, help students who are frustrated, accommodate different abilities?

Goals for students. Describing the teacher role entails detailing how the teacher can help students learn, not only a given body of content, but also process skills, such as critical thinking, writing, and problem solving. It also includes one's thoughts on lifelong learning - how teachers can help students to value and nurture their intellectual curiosity, live ethical lives, and have productive careers. For most teachers, it is easier to begin with content goals, such as wanting students to understand certain aerodynamic design principles or the treatment of hypertension. The related process goals, such as engineering problem solving or medical diagnostic skills, might be described next. Finally, career and lifelong goals, such as team work, ethics, and social commitment, can be detailed.

Implementation of the philosophy. An extremely important part of a philosophy of teaching statement is the description of how one's concepts about teaching and learning and goals for students are translated into action. For most readers, this part of the statement is the most revealing and the most memorable. It is also generally more pleasurable and less challenging to write. Here, college teachers describe how they conduct classes, mentor students, develop instructional resources, or grade performance. They provide details on what instructional strategies they use on a day-to-day basis. It is in this section that teachers can display their creativity, enthusiasm, and wisdom. They can describe how their No Fault Test System or videotaping technique for promoting group leadership skills implements their notions of how teachers can facilitate learning. They can portray what they want a student to experience in the classes they teach, the labs they oversee, the independent projects they supervise. They can describe their own energy level, the qualities they try to exhibit as a model and coach, the climate they try to establish in the settings in which they teach.

Personal growth plan. For some purposes, including a section on one's personal growth as a teacher is also important in a statement of

teaching philosophy. This reflective component can illustrate how one has grown in teaching over the years, what challenges exist at the present, and what long-term goals are projected. In writing this section, it helps to think about how one's concepts as well as actions have changed over time. It might be stimulating to look at old syllabi or instructional resources one has created, asking about implicit assumptions behind these products. Dialogue with colleagues, comparison of practices with goals, and examination of student or peer feedback on teaching might help with the task of enumerating present questions, puzzles, and challenges. From these, a vision of the teacher one wants to become will emerge. Describing that teacher can be a very effective way to conclude a philosophy of teaching statement.

Examples of Statements By far, the best philosophy of teaching statement examples for most college teachers are those of peers who teach in similar settings or disciplines. Since statements tend to be tailored to specific contexts, peer examples are thus highly appropriate models. Dialogue with colleagues on these statements can help to stimulate ideas for one's own statement as well.

Other examples are contained in several recent books on teaching portfolios, such as Seldin (1993) and O'Neil & Wright (1993). Reflective books on effective college teaching often contain extensive descriptions of teaching philosophies, such as the chapter on "Developing a Personal Vision of Teaching" in Brookfield's *The Skillful Teacher* (1990) and "Three Teaching Principles" in Louis Schmier's *Random Thoughts* (1995).

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Writing to Learn

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It is important for the university through its instructors, particularly in introductory courses, to teach its students to critically examine their view of the world. Students frequently hold views different from or alternative to those to which they will be exposed in their courses. This discovery about students has roots in Piaget's early studies of the way children explain natural phenomena (1929). Moreover, as Pintrich, Marx and Boyle(1993) point out, the modern theory of conceptual change assumes that bringing about changes in an individual student is analogous to the nature of change in scientific paradigms proposed by philosophers of science, particularly Kuhn and Lakatos. A good discussion of this idea is found in Duschl and Gitomer (1991).

With these theoretical underpinnings, conceptual change models have become the norm for research on learning in physical and social science and mathematics. Thus, for example, in the in-depth analyses of student attitudes in physics undertaken by Halloun and Hestenes (1985a, 1985b) it is shown that students enter introductory courses with viewpoints differing significantly from paradigms that will be taught them; and, as they progress through the courses, these same students go to great lengths to maintain their original viewpoints. What is required is for students to understand the conceptual framework underlying the course. Helping students to do this involves initiating a growth process which can easily span the entire course.

Conceptual Change How do we produce conceptual change?

These sorts of insights are arrived at in a learning environment that encourages an interplay of learning models: "In order for reflection to occur, the oral and written forms of language must pass back and forth between persons who both speak and listen or read and write-sharing, expanding and reflecting on each other's experiences" (Belenkey, 1986). Writing to learn, with its emphasis on free writing and peer feedback, can be a large part of our technique in teaching our students these vital conceptual skills. As James Britton frames the problem: "In every kind of writing, defining the nature of the operation, devising ways of tackling it, and explaining its meaning and implication to oneself are essential stages that the mind engages" (Britton, Burgess, Martin, McLeod, & Rosen, 1975 p.90).

Writing in courses allows students to mediate their own "knowledge" with the new knowledge which the course presents to them. Writing to learn and learning to write allows exploration of the student's own doubts, gaps in knowledge, and gropings for the answer. Prewriting, drafting, and rewriting are integral to any successful piece of writing; what is so often not taken into account is that we never can "get it right" the first time that we put pen to paper.

The Process of Writing Peter Elbow (1973) explains the process in this way: "Just write and keep writing...It will probably come in waves. After a flurry, stop and take a brief rest. But don't stop too long. Don't think about what you are writing or what you have written or else you will overload the circuit again" (p. 61).

As Elbow demonstrates, writing is a recursive process, one that goes backward and forward and backward again, from jotting down initial conceptions to drafting the work to generating new ideas and new formats. When students are writing within their discipline, opportunities to discuss work with instructors and peers, and occasions to reevaluate and rewrite their initial work are crucial to the success of the project and to the development of students' sense of themselves as both writers and members of their disciplinary communities. In many ways, this parallels the process of reflection in which a writer engages when confronted with the referees' comments on an article submitted for publication.

Elbow rejects the notion that a writer must move from the beginning

of a piece of writing to the end in a linear fashion. Instead, he looks at writing as holistic. One goes through successive drafts of a piece of writing, moving from an imprecise picture through progressively complex, lucid, unified, and coherent interpretations. Out of the interaction of the various components of the piece, the student achieves a convincing piece of work (pp. 29-30).

The student is looking, throughout this process of writing, for the unfolding of a focus or a theme. The student reaches for that point at which chaos gives way to a centred focus: "What this means in practice is that in a piece of writing you must force yourself to keep getting some center of gravity or summing-up to occur. Let the early ones be terrible. They will distort your material by exaggerating some aspects and ignoring others" (Elbow, 1973, p. 36).

Adapting Writing to Learn Writing to learn, a technique which is not new and has proven adaptable to different learning styles and situations, is adaptable to all disciplines. It is a method that ensures students' awareness of the concepts underlying the topics being discussed and discourages the viewing of material as an agglomeration of disembodied facts and formulae to be learned.

Before the class students freewrite in their journals about material in order to be able to analyze it not only by developing questions, but also by answering these questions before the class. They might be asked to analyze a text covered in class, to connect it to other reading they have done and to their own experience, and to formulate a possible general statement from these writings. Students can also produce a presummary of the material to be covered in the next class, based on the ideas they develop in their reading of course material and their freewriting as well as write a postsummary based on the concepts they have come to understand after the week's classes. In smaller, higher level courses, the full recursive and interactive approach to writing can be employed by means of a course dossier in which students develop an overview of the course with the assistance of two student reviewers. They can address such questions as what the main concepts of this course are, how they fit together, and what the implications of these concepts are for the development of the general principles of the discipline? (For more details see Kalman and Kalman, 1996).

Exciting as the idea of writing to learn may be, one of the concerns expressed by teachers in all faculties is the need for a balance between our desire to enhance teaching effectiveness by using techniques other than the lecture and our responsibility to cover obligatory course material. Yet writing to learn activities can be incorporated within the course structure without losing a significant amount of teaching time. As little as ten minutes of class time on a regular basis will add significantly to the students' ability to assimilate and think critically about the concepts introduced in class. Some writing can be incorporated into the course in the form of outside assignments, such as journals.

By expending some time in writing to learn techniques both inside and outside the classroom, we actually save time. The interval spent answering students' questions will be more meaningful as the students write their way into a more sophisticated understanding of the course material. Writing will often avert the "dead space" of fear, those times when students' anxiety blocks their ability to think in an exam situation, to produce a reasoned and competently written paper, or to solve problems efficiently and creatively. Writing to learn reduces the paralysis of apprehension and leads students into the discovery of their own questions and solutions.

Conclusion With this technique we can circumvent the attempt by students to regurgitate lecture material and can discourage them from simply manipulating the prevailing models and formulae of their disciplines. It enables students to achieve necessary critical thinking skills as well. With writing to learn, students can write their way into an understanding of difficult concepts which they have not grasped before.

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Problem-based Learning: Preparing Students to Succeed in the 21st Century

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Introduction Leaders in government, the private sector, and education agree that our entire educational system is in need of reform. A driving force behind this reform is the realization that successful employment and citizenship require different knowledge and skills than in the past (Wingspread Conference, 1994; National Research Council, 1996). Thus in addition to their more traditional role as purveyors of discipline-specific knowledge, teachers are being urged to adopt classroom methods that help students to develop the competencies identified as necessary for success, including the abilities:

- to think critically and analyze and solve complex, real world problems;
- to find, evaluate, and use appropriate learning resources;
- to work cooperatively in teams and small groups;
- to demonstrate effective verbal and written communication skills;
- and to use content knowledge and intellectual skills to become continual learners.

Problem-based learning (PBL) provides an environment for promoting these skills.

Problem-Based Learning The basic principle supporting the concept of PBL is older than formal education itself, namely that learning is initiated by a posed problem, query, or puzzle that the learner wants to solve (Boud & Feletti, 1991). In the problem-based approach, complex, real problems motivate students to identify and research concepts and principles they need to know in order to progress through the problems. Students work in small learning teams, acquiring, communicating, and integrating information in a process that resembles that of inquiry. PBL has its roots in the medical school setting where small groups of mature, motivated students work in small groups in a clinical context. In order to incorporate PBL in undergraduate courses, we must find models of instruction that allow one faculty member to teach large numbers of typical undergraduate students. Some faculty at the University of Delaware have been doing just that - piloting models for the successful incorporation of PBL into their undergraduate courses. Despite course-specific differences in the models, the following essential features (Engel, 1991) have been preserved:

- Students are presented with a problem (case, research paper, videotape, for example). In groups they organize their ideas and previous knowledge related to the problem and attempt to define its broad nature.

- As they discuss, students pose questions, called "learning issues," on aspects of the problem that they do not understand. They are continually encouraged to define what they know - and more importantly, what they do not know.

- Students rank, in order of importance, the learning issues generated, deciding which questions will be followed up by the group and which can be assigned to individuals, who later teach the rest of the group. Students and instructor also discuss the resources needed to research these issues and where they can be found.

- When students reconvene, they explore the learning issues and

integrate their new knowledge into the context of the problem. They are also encouraged to summarize their knowledge and connect new concepts to old ones. They continue this cycle of defining, researching, teaching, summarizing, and integrating learning issues as they progress through the problem.

Students soon see that learning is an ongoing process and that there will always be (even for the teacher) new learning issues to be explored. Because they learn concepts in context, they are more likely to retain that knowledge and apply it appropriately (Albanese & Mitchell, 1993) in novel situations. As they work through real problems, students will be confronted with the realization that knowledge transcends artificial boundaries.

Faculty Role What is the faculty role in PBL? The instructor guides, probes for deeper understanding, and supports students' initiatives, but does not lecture in advance on essential problem-related concepts, nor direct or provide easy solutions. The degree to which a PBL course is student-directed versus teacher-directed is a decision that faculty must make based on class size, intellectual maturity of the students, and course goals. For example, in a large class of novice learners, the instructor can interrupt the group problem-solving process at 10-15 minute intervals for whole class discussions or mini-lectures that assist students past conceptual barriers or allow them to "compare notes" on approaches to the problem. Adding this structure requires constant negotiation of the balance between necessary support and constraint of the students' intellectual initiatives. If the balance is tipped too far in the instructor-centered direction, students may no longer feel motivated or empowered to take a responsible role in their learning. As with any form of collaborative learning, faculty must be ready to yield some of their control over the learning enterprise to the students (Finkel & Monk, 1983).

Group-Based Learning There is a wide range of student experiences with groups. Because the success of PBL depends heavily on group work, the instructor must lay the groundwork for effective group functioning early. One strategy for the first week of class, is to initiate a discussion in which students describe their experiences working in groups, both good and bad. They then

suggest behaviors to promote beneficial aspects and discourage unproductive ones. It is important to form groups (and set them to work on problem-solving activities) usually no later than the second week of a course. In most instances, the groups should be permanent and given an intentionally or randomly heterogeneous composition by the instructor. After groups are formed, they establish a set of ground rules to which all members agree to in writing. These should include coming on time, being prepared for every class, respecting the views of fellow group members, and, importantly, dealing with members who do not follow the ground rules.

Managing Multiple Groups How can the instructor facilitate the problem-solving process when there is more than one classroom group? Models piloted at the University of Delaware include a combination of one or more of the following strategies.

- The faculty member serves as a "roving" facilitator, spending no more than 5-10 minutes with each group.

- Roles of responsibility rotate within each student group. Examples of such roles are "reporter", "recorder", "discussion leader", and "accuracy coach".

- Short, structured problems and associated assignments are used -- ones that provide a natural break point for groups to report to the class as a whole on important learning issues or to receive instructor guidance.

- Upper class undergraduates who have had prior PBL experience, particularly in the course serve as roving facilitators.

Problems & Instructional Materials The selection of appropriate problems is crucial for success. The following is a list of the important characteristics of a good PBL problem.

- The problem must first engage students' interest and motivate them to probe for deeper understanding of the concepts. It should relate the subject to the real world so that students will have a stake in solving the problem.

- Good problems require students to make decisions based on facts, information, logic, and/or rationalization. Problems should require students to define what assumptions are needed (and why), what information is relevant, and/or what steps or procedures are required to solve the problem.

- The ideal problem is constructed so that not all of the information needed for a solution is initially provided. For this reason, many PBL problems are designed with multiple pages, to be given to student groups one at a time as they work through the problem.

- Cooperation from all group members is necessary in order to work through a good problem effectively. The length and complexity of the problem or case must be controlled so students realize that a "divide and conquer" effort will not be a successful strategy. For example, a problem that consists of a series of straightforward "end of chapter" questions may be divided by the group and assigned to individuals, then reassembled for the assignment submission. In this case, students end up learning less not more.

- The initial questions on the first page of a problem should be open-ended, based on previously learned knowledge, and/or controversial so that all students are initially drawn into discussion. This strategy keeps the students functioning as a group, rather than encouraging them to work individually from the outset.

- The content objectives of the course should be incorporated into the problems, connecting previous knowledge to new concepts and connecting new knowledge to concepts in other courses and/or disciplines. Problems can also be constructed so that they help students build upon skills or process objectives in incremental fashion.

Summary Problem-based instruction can help develop the skills necessary for success in college as well as the world outside the classroom. As students in problem-based classes become participants in a community of continual learners, the faculty who

teach them witness the excitement of discovering their discipline through their students' eyes.

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Adding Online Computer Methods to Your Repertoire of Teaching Strategies

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Online teaching is reshaping instruction in higher education. Students and instructors can benefit greatly from its versatility. Animations of biological, chemical, and genetic processes increase student understanding of abstract concepts. Rotating objects and geometric figures allow students to view mathematical ideas and architectural, industrial, and engineering designs from several perspectives. Using interactive graphs and data bases, students see what happens when they manipulate financial, mathematical, and statistical information. Students no longer have to imagine sounds. Through the use of online aural capabilities, they actually can hear the voices of politicians; listen to normal/abnormal heart sounds; or conversations in languages other than English; and compose, hear, and recompose musical compositions.

Online instruction accommodates a wide range of learning and teaching preferences. Teachers and students can readily individualize course assignments by accessing a variety of internet links. Contacts between instructor and students increase with effective use of online office hours. Online lecture notes extend opportunities for frequent review. Quiz programs offer students the question/immediate feedback/ explanation sequences that improve learning.

Online discussion involves students in a wide range of activities that contribute to intellectual growth. For instance, timely online discussion can maintain the excitement of a special campus lecture. Multiple group projects can be facilitated through online discussion. Off-campus project mentors are accessible online, and their comments can be downloaded for later discussion. Through web links to sites abroad or personal email correspondence, students in foreign language classes can read the everyday prose of native speakers. Students and faculty can conveniently conduct many writing activities online, for instance, preliminary discussions of research paper topics and first drafts, peer editing, journal review, and planning for group reports. And instructors can communicate assignments and schedule changes as well as make announcements quickly and efficiently.

Principles for Online Instructors The same rationality that we apply in disciplinary research can guide online teaching, and we can carefully integrate online methods into a course. We can seek out learning principles to direct the selection and implementation of online teaching strategies.

- Active learning is better than passive learning.

- Learning requires focused attention and extensive time on task.

- Information organized in personally meaningful ways is easier to remember and use.

Faculty who use online teaching methods without carefully developing a rationale for their use are less satisfied at the end of a term than their counterparts who have sound reasons for using online instruction

Practical Planning As students and as instructors, we have participated extensively in face-to-face lectures, labs, and seminars. However, we have far fewer hands-on experiences with online university teaching. So how do we deal with the ups and downs of experimenting within a new teaching environment?

Try not to go it alone. Team up with a group that can provide coaching, feedback, confirmation, and support. Meet regularly to discuss what works and what might be changed.

It is important to consider how much time and energy to allocate to online course development and teaching. The scope of initial online projects is dependent on a number of factors. Some instructors succeed with ambitious projects; some prefer a gradual approach. Expectations for teaching, research, and service, as well as where one stands in the promotion and tenure process, should not be ignored. New course preparation is time consuming, often requiring several times as many hours as expected. Therefore, it is critical to our professional and personal well-being to establish a realistic calendar for online projects.

Software/hardware Details Check out the computer facilities available to students. Are there enough computers dedicated to class work? Are they in convenient locations and open at times students are likely to use them? Who will install and maintain the software? Try to develop some degree of hands-on skill in manipulating the computer course environment. If there is no time to learn the basics of a particular software, find another that is less complicated.

When our plans are well formed but facilities or technology support is lacking, we may have to ask for additional resources. If that isn't forthcoming, it may be necessary to change our plans, Implementation of online teaching depends in part on everyone in class having frequent, comfortable access to computers and software that is reliable and reasonably easy to use. To keep our sanity and our students, we have to balance what we would like to do with what is practical.

Even if we are part of an instructional development team, we need to learn to make simple changes online; programmers may be hired away, computer savvy students might catch the flu. And, we have to require team members to write careful explanations of what they do so that clear program documentation is available for future iterations of the course.

Learning Skills/Teaching Skills Although more and more students

are familiar with online learning, hands-on instruction for students is still recommended. A simple assignment using one or more course computer elements provides immediate practice with the online course environment. Monitor students' completion of the assignment; provide online feedback to increase student interest and use. Establish a dialogue with those students who have not completed the assignment; find out if their non-participation is related to the computer teaching strategies. Even when initial training is well-done and online activities are well-integrated into a course, anticipate a few computer-phobic students.

A laissez-faire approach to online teaching seldom works; some degree of monitoring and feedback are essential to encourage student participation. However, different online strategies require different approaches. For online discussions, pose focused introductory questions, and peel off topics and responses from the general discussion as needed. Judiciously monitor the groups, avoiding the extremes of neglect or excessive intervention; add information or call for particular students' views, refocus, reflect, summarize, and close discussions. Try to make your own messages to students models of good online writing--timely, succinct, to the point, respectful. In addition, take into account your and your students' discussion time commitment, so that the online discussion doesn't become onerous.

Although online office hours provide opportunities for timely interchanges, student use is not automatic. To attract student attention, answer some questions posed in class online, post comments on widespread misunderstanding, post sample exam questions and offer bonus points for correct answers. Negotiate ground rules for the kind of help to be offered, as well as for response time frames. (Otherwise students may pose a question at 23:22 and be disgruntled if it is not answered by 8:30 the following morning.)

In addition to monitoring student use, collect informal student feedback about online use. Early in the term, ask students to respond to such questions as the following: 1) Which online strategies contribute to your understanding of the course material? Explain your answer. 2) What do you like least about working online in this course? This information provides a base-line for

adjusting instruction during the term.

Sources of Information about Online Teaching In addition to information from experienced faculty and students on campus, the World-Wide Web is a rich source of information about online instruction. 1) Commercial sites demonstrate the latest teaching software. 2) University sites highlight faculty accounts of online teaching; many of these reports are invaluable for their insights and honesty. 3) Evaluative studies discuss key components of successful online courses. 4) Dedicated listservs offer thoughtful commentary. It is not necessary (or even possible) to become familiar with all the available online software and strategies used in higher education, for the field is large and the information and applications are constantly being updated or supplanted. However, there is enough summary information available so that we can evaluate the many opportunities, costs and benefits of online instruction.

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Keys to Using Learning Groups Effectively

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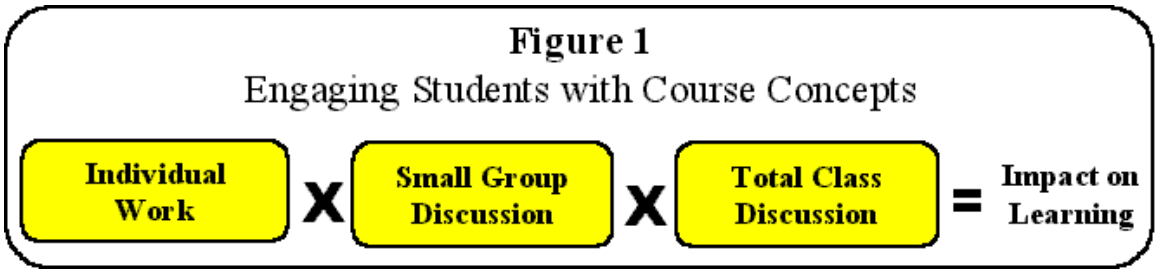
Small group-based instructional methods can produce a wide variety of positive educational outcomes. These outcomes, however, only occur when instructors create conditions which motivate students to prepare for and engage in give-and-take discussions. Fortunately, by applying three fundamental principles, instructors can create these conditions in the vast majority of learning groups. These principles, referred to as "KEYS" in this essay, are: 1) promoting individual and group accountability; 2) using assignments that link and mutually reinforce individual work, group work, and total class discussions; and 3) adopting practices that stimulate give-and-take interaction within and between groups. Further, to obtain the best results from using small groups, instructors must observe these keys in managing each of three opportunities (shown as "3 Boxes" in Figure 1) to engage students with course concepts: individual work, small group work, and total class discussion.

Figure 1

Engaging Students with Course Concepts



KEY #1 - Promoting Ongoing Accountability If students fail to prepare for group work, group assignments are likely to force better students to "carry" their less willing and/or less able peers. Further,

improperly managed small-group discussions are likely to degenerate into social events in which little if any learning occurs. Both problems can be avoided by holding individuals and groups accountable for their behavior. *Individual accountability*. Instructors can use three quite different mechanisms to promote responsible individual behavior. The most basic mechanism is requiring individual assignments (especially graded ones) prior to group discussion (e.g. requiring students to turn in written concept summaries at the beginning of class on group assignment days). A second mechanism is using procedures or assignments that cause members to express their point of view during group discussions. For example, some instructors assign one member to make sure that everyone is asked to provide input. The third mechanism is to include peer evaluation in the grading system.

One effective way to promote individual accountability is the Readiness Assurance Process in team learning (Michaelsen & Black, 1994). This process requires individuals to complete a multiple-choice test over a set of pre-assigned readings and turn in their answers. Next, groups re-take the same test and turn in their consensus answers for immediate scoring. This process incorporates all three mechanisms for promoting individual accountability. First, students are directly accountable because the individual scores count as part of the course grade. Second, during the group test, members are invariably asked to voice and defend their choices on every question and the immediate feedback provides clear evidence of the importance of obtaining input from everyone on all important decisions. Third, members who fail to contribute are likely to receive a low peer evaluation.

Group Accountability. Without group accountability neither instructor nor students know 1) if their learning goals have been achieved or 2) if students are taking the group work seriously. Groups can be held accountable by carefully managing small group and total class discussions. First, assignments for groups (or each phase of a long-term project) must require groups to produce a tangible output. Second, to the extent possible, the output should enable both prompt quality assessment and inter-group comparisons.

KEY #2 - Using Linked and Mutually Reinforcing Assignments - "3 S's" The second key to using groups effectively is making sure that the assignments at each stage of the learning process (i.e., the "3 Boxes" in Figure 1) are linked and mutually reinforcing. When this is done, assignments in the first two stages have a powerful positive effect on the learning that occurs in the next stage. To obtain the maximum overall payoff, assignments at each stage should be characterized by "3 S's":

1) **Same problem:** Individuals/groups should work on the same problem, case, or question.
2) **Specific choice:** Individuals/groups should be required to use course concepts to make a specific choice.
3) **Simultaneously report**: Whenever possible, groups should report their choices simultaneously.

The importance of assignments that are linked and mutually reinforcing is illustrated by the experience of a colleague who uses a series of case files to develop medical students' critical thinking (i.e., diagnostic) skills. For many years, she assigned groups to write a series of one-page memos identifying a preliminary diagnosis for each patient but was disappointed in the learning outcomes for two reasons. First, students only worked with part of the cases because groups delegated the work to individual members. Second, correcting the assignment took so long that the value of the feedback was minimal. She now uses the Readiness Assurance Process (described above) to ensure that students have mastered basic concepts and that groups have developed a norm of seeking input from each member before reaching a decision. Then, on the day of the activity, she adds a vital piece of new information to a set of pre-assigned cases and gives groups a specified length of time to either 1) select a most likely diagnosis from a limited set of alternatives or 2) commit themselves to a position that they do not have enough information to make a definite diagnosis. When the time has elapsed, she gives a signal and the groups simultaneously hold up a legal-sized sheet of paper on which they have recorded their choices. The outcome is a lively discussion within the groups followed by a vigorous interchange between groups.

KEY #3 -- Adopting Practices that Stimulate Idea Exchange The degree to which group discussions expose students to new perspectives from their peers depends on two factors. The first factor is the extent to which the instructor uses assignments and creates conditions that foster give-and-take group interaction. The other factor is the diversity of opinions, ideas, and perspectives that exist within each group.

Using assignments that require group interaction. The most common reason for a low level of group interaction is the use of assignments that can be completed by independent individual work. For example, if assignments are too easy, one member will simply act on behalf of the group. Assignments that require a great deal of writing can also limit both interaction and learning. If asked to produce a lengthy document, group discussions tend to focus on working out who will write which piece of the total product. By contrast, assignments that require students to use course concepts to make difficult choices (e.g., the medical school example above) always produce high levels of both interaction and learning (Michaelsen, Fink & Knight, 1997).

Removing barriers to participation. Often, members of new groups are reluctant to speak out. One response to this problem is assigning roles within the group, e.g., recorder, summarizer, devil's advocate, etc. However, a more powerful approach is using permanent groups and assignments, practices, and a grading system that foster the development of group cohesion (Michaelsen, Black & Fink, 1996). As groups become more cohesive, trust and support typically build to the point that even naturally quiet members are willing to engage in intense give-and-take interactions with little worry about being offensive or misunderstood (Watson, Michaelsen & Sharp, 1991). As group members come to see their own success as tied to the success of their group, they are motivated to invest considerable personal energy into doing group work.

In-class group work. Interaction is also likely to be limited unless groups are allowed to do their work in class. In many cases, the cost of meeting outside of class is so great that students will meet just long enough to divide up the work. They will then complete the assignment individually and learn little from each other. Their output

is a group product in name only, and any cohesiveness developed during the initial meeting is likely to be offset by a concern that other members might fail to do their part.

Creating diverse groups. Another way to expose students to new ideas is making sure that groups are relatively large (5-7 members) and as diverse as possible. Creating diverse groups involves two steps. The first is identifying the dimensions that make a difference in student performance in each specific course, e.g., majors, previous course work, relevant job experience, etc. The other is sorting members into groups so that member assets and liabilities are spread as evenly as possible across groups (Michaelsen & Black, 1994).

Summary and Conclusions By using assignments in each of the "3-Boxes" (see Figure 1) that are completed during class time, and are characterized by the "3-S's" (**S**ame problems, **S**pecific choice, and **S**imultaneously reporting), instructors create the conditions needed for effective learning groups. These conditions include: individual and group accountability, the need and opportunity for group interaction, and the motivation to engage in give-and-take discussion. In the vast majority of groups, the net result will be increased learning and high satisfaction for both students and instructors.

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Academic Civility Begins in the Classroom

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Incidents of hate speech, physical and emotional harassment, and offensive communication via the Internet, regrettably, are far too prevalent on college campuses (Jensen, 1995; Leatherman, 1996). More subtle forms of intolerance toward controversial ideas, schools of thought, or various minority groups are also evident in higher education. Such breaches in academic civility may reflect conditions in the larger society. A *U.S. News and World Report* poll found that 89 percent of Americans believe that incivility is a major social problem (Marks, 1996). Even though acts of disrespect and harassment may reflect a trend throughout our culture, such insidious practices should be addressed forcefully on college and university campuses. Frequent reports of intolerant incidents in the *Chronicle of Higher Education* and the popular press demonstrate that incivility within the academic community is too damaging to ignore.

Recognizing this threat, some higher education institutions have tried to create a more civil atmosphere by imposing speech codes or other policies intended to regulate and humanize communication and other interpersonal relations. In many cases, these efforts have been struck down by courts or proven very difficult to enforce (Heinemann, 1996).

Such restrictive policies seem to attack the symptoms but not the sources of the problem. Some critics argue that such policies "may actually contribute to an atmosphere of intolerance, and to an impression that some basic rights can be short-circuited to protect

others" (People for the American Way, 1995, p. 1).

The phenomenon of academic incivility is so complex that it demands to be addressed at numerous places within the academic community. Perhaps the most logical, but little used, point of intervention is the college classroom. This essay argues that promoting civility should be a universal goal of higher education that is addressed in every appropriate college course.

Sources of Incivility on Campus

Intolerant behavior on campus is not a new phenomenon. The "Politeness Movement" established at the University of Edinburgh during the Scottish Enlightenment tried to counter religious intolerance. Advocates of politeness "sought to establish ... civilized discourse and due regard for an opponent's point of view" (Nordin, 1991, p. 17). Many factors seem to account for academic incivility in the late 20th century. Increasing diversity on campus brings together persons who do not share the same mores, values, or modes of communication. Similarly, there seem to be growing gaps among students and faculty as disciplinary fields become more specialized, narrowly focused, and esoteric. A sense of community is also diminished in large and transient institutions where people often do not know, let alone respect and trust, persons who work or live in close proximity (Leatherman, 1996).

Civility: A Core Academic Value

Respectful discussion and debate are at the heart of the academic enterprise. Advocating civility does not symbolize a retreat from passionate argument. On the contrary, it acknowledges that meaningful and constructive dialogue requires a certain degree of mutual respect, willingness to listen, and tolerance for opposing points of view. Classroom discussions, like any academic debate, should follow norms of decency and effective communication. Debaters should attack ideas but never individuals who hold opposing views (Leatherman, 1996). Although these guidelines seem like common sense, evidence of incivility on campus suggests that they are not universally held or practiced. It appears that higher education must address the issue of civility directly if it wishes to foster an environment conducive to discussion, debate, and learning.

Promoting Civility in the Classroom

It is in the classroom that students first encounter treasured values of the academy (e.g., the critical review of ideas , support of opinions with evidence, openness to alternative viewpoints) and begin to practice them as apprentice scholars, emerging professionals, and good citizens. Classes that establish norms for respectful dialogue and reasoned debate can empower students to argue constructively, grow through rigorous intellectual exchange, and prepare them for life in a complex, pluralistic world.

No simple formula or prescription for promoting academic civility can be applied to all college classrooms. Varied educational strategies are required to develop an atmosphere of civility within different disciplines, educational levels, and among differing types of students. Educators may choose from several strategies that can foster civility in their classrooms and ideally across their campuses. These include:

- *Developing a statement of values and goals*. At the beginning of the term, it is beneficial to communicate how important civil behavior is to the success of a course. A verbal statement from the professor coupled with a section on respectful discussion and debate in the syllabus can clarify up front the critical role of civil discourse in the teaching and learning process. An explicit statement on the necessity of an environment tolerant of difference is especially important in subject areas that address controversial issues. Virtually no academic field is exempt. Courses in the arts and humanities, biological and physical sciences, social sciences, and professional fields all confront "hot button" issues that cause people to line up passionately on different sides.

- *Drafting ground rules for dialogue*. Ineffective efforts to impose speech codes on campuses illustrate the futility of rules that are implemented without a sense of ownership among the targeted groups. Some time invested early in the life of a course to discuss and develop ground rules for communication (oral, written, and electronic) among class members can enhance acceptance of guidelines designed to insure the respectful

dialogue essential to open minded analysis and learning.

- *Selecting appropriate instructional strategies*. A variety of strategies can help students acquire the values, attitudes, and skills that underlie academic civility. They will be most effective when coupled with an explicit statement of classroom values and clearly defined guidelines for respectful dialogue. Such strategies include the following:

A. *Staging debates*. Sessions that clarify opposing points of view and build credible cases for contrasting positions can enlighten students to the complexity of controversial issues like genetic engineering or environmental pollution. When guided carefully, debates can promote critical thinking, tolerance for alternative perspectives, and respect for persons who hold differing opinions -- the key building block of academic civility.

B. *Playing and reversing roles*. Like debates, assuming distinct roles (e.g., an unwed, pregnant teenager, an opponent of abortion) can clarify the merits of diverse stands on complex topics and humanize those with differing opinions. This approach requires students to analyze information and attitudes that they might typically reject out of hand when confronted with a controversial issue. The purpose of role playing is not necessarily to change students' minds on a topic like the clear cutting of forests but to enhance their ability to look at issues from multiple perspectives and, in the process, to develop tolerance for persons who hold different views.

C. *Employing case studies*. Long used in business schools to address complex problems, the use of cases is also an ideal technique to foster academic civility. They enable students to look at multifaceted issues within their larger context. For example, a case focusing on hate speech could be used in a communications class or a case on sexual harassment could be used in a sociology course to alert students to the sources of such behaviors, the motives of the perpetrators, and the feelings of the victim(s). When utilized effectively, case studies encourage students to develop alternative scenarios that prevent or resolve problems effectively. Instructional strategies that enable students to examine provocative topics holistically promote the development of higher level thinking and

tolerance of ambiguity that lead to civil behavior in a pluralistic world.

D. *Critiquing negative models*. Negative examples can be a powerful teaching tool (Heinemann, 1996). Asking students to analyze videotapes of intolerant practices or written examples of dogmatic thinking can promote personal reflection and behavior change. For instance, *Higher Superstition* (Gross & Levitt, 1994), a recent stinging attack on postmodern views of science, could be used in science courses to examine collegial communication.

Conclusion

Creative college teachers can expand this list of strategies to promote civility in the college classroom. Any practices that encourage students to reflect on their own beliefs, gather relevant data to inform their opinions, remain open to alternative positions, and respect others who hold differing beliefs will enhance the quality of dialogue in the classroom. Above all, professors who model respect for their students and open-mindedness toward alternative points of view will promote respect and tolerance among their students. No doubt, when the habits of civility are nurtured in the classroom, they will gradually permeate the institutional culture as a whole.

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