

T E A C H I N G M A T T E R S

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Think About It: Reflection for Effective Teaching

- Miriam Rosalyn Diamond

Dr. Rachel Naomi Remen, oncologist and medical educator, instructs physicians and residents to keep a daily journal based upon their interactions with patients. They are asked to log their answers to three questions:

What surprised me today?

What moved me or touched me today?

*What inspired me today?**

The purpose of this exercise is to increase awareness of what is happening to and around the physicians, as well as foster examination of their thought processes, feelings, and the reasons behind the choices they make.

Faculty, like medical doctors, can have profound influence on others – in this case, our students – and they on us. Opportunities for our own professional (and personal) development occur every time we teach. We simply need to be open and alert to these experiences. We can use reflection to mark progress we have made toward realizing our potential as great teachers. We can take the opportunity to establish goals for our own development. We can discern what situations and people “push our buttons,” in ways

that affect our work, and we can identify adaptive means of responding.

The big question for many faculty members (particularly during this period of change on campus) is “Where can I find the time for reflection?” As with maintaining a routine for physical exercise, we have to prioritize space for introspection in our lives. And like many forms of exercise, spending as little as 10 minutes on a regular basis can make a noticeable difference in our strength, stamina, self-awareness - as well as capacity to set and achieve realistic goals. There are several formats and time intervals we can use to achieve this.

You may find that rather than reflecting on a daily basis, you prefer to identify a couple of key time points in each term (such as after grading the first round of exams or papers) when you could re-visit and reconsider the decisions you made about teaching. In her book *The Course Syllabus: A Learning-Centered Approach* (1997, Bolton, MA: Anker Publishing Company, Inc.), Judith Grenert of Syracuse University suggests that professors contemplate how we start each class, and why we begin with that particular topic. She asks us to think about what we would like our students to believe,

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* From “Educating for Mission, Meaning and Compassion”. In Glazer, S., 1999, *The Heart of Learning*, Penguin Putnam: New York, p.44

question, or challenge by the course's end. She recommends that we look for metaphors we could use to describe each course, the way we approach it, and how it fits into the larger picture. Examples such as a voyage, detective story and triathlon are some of the ways faculty may view their method of organizing and delivering classes. We can then examine our choice. Why does that metaphor hold true for our teaching? Are there others we could consider? How would using a different metaphor affect our mind-set about instruction? Our practices?

Stephen Brookfield, author of *Becoming a Critically Reflective Teacher* (1995, San Francisco: Jossey Bass), encourages faculty to take an annual inventory of our careers and identities as educators. He proposes that we ask ourselves what we are most proud of, what we want our students to say about us, what we are most concerned about in our teaching, and how we know when we have been successful. He also asks us to identify critical incidents in our careers; mistakes we made that ultimately helped us grow and improve as teachers. He suggests that we compare our thoughts on these matters to how we (would have) answered in the previous year. What tools and approaches do we now feel more comfortable

using in the classroom? What more have we learned about who our students are and how to connect with them?

The end of the academic year is an opportune time to reflect on what transpired, how we have grown, and our visions for the coming year. Brookfield says that "Critically reflective teachers learn from the past but live in the present with an eye to the future" (p. 265). This year in particular, as we transition from quarters to the semester calendar, the future holds great potential for transformation. This edition of *Teaching Matters* includes reflections by people in faculty and teaching assistant positions about the role their disciplines play to prepare students for life. It also records the experience of a participant in "Breakfasts for the Soul", as well as the book group on spiritual aspects of teaching, and addresses the role of reflection in ethical awareness.

Why not use this as an opportunity to look around, backward and forward in an effort to maximize the opportunities this transformation presents? *

Miriam Diamond is Assistant Director of the Center for Effective University Teaching

Quotations on Reflection

Attention to the inner life is not romanticism. It involves the real world, and it is what is desperately needed in so many sectors of American education.

-Parker Palmer

Above all, leave room for your own learning – for the chance to discover and teach something you didn't know when the course began... every class should be for you as much as for the student, and it cannot be that unless there are many moments of opening out into unforeseen learning.

- Wayne C. Booth

One of the hardest things for teachers to do is to imagine the fear that students feel as they try to learn what we teach.

- Stephen Brookfield

The heart of intellectual work is critical engagement with ideas. While one reads, studies, and at time writes, a significant part of that work is time spent in contemplation and reflection.

- bell hooks

The best lives are full of contemplation, full of solitude, full of self-examination, full of private, personal attempts to engage the metaphysical mystery of existence.

- John Taylor Gatto



The Place of Liberal Arts in the 21st Century

- Gwilym Jones

A University by definition is a center for learning and disseminating information. I have always believed that the core reason for the existence of a university is the students and that the most effective teachers (the disseminators of knowledge) are research active faculty.

The College of Arts and Sciences (formerly College of Liberal Arts) forms the academic core of the university. In addition to its own student body, CAS services all of the other colleges through English, Math, Biology, Psychology, Physics, Sociology, etc,

The contributions of Liberal Arts are critical to education because the world is now vastly more complex due to knowledge accumulated by scholars (that is educated thinkers). We are now expected to understand such phenomena as: trans tax transmission of zoonoses e.g. HIV, SARS, and falciparum malaria, as well as computer upgrades every 24 hours. Such knowledge is coming into our lives at an ever increasing rate and complexity. In order to understand such, one must have a broad background and appreciation.

An outcome of ever changing technologies can be the need to change careers one or more times because one's specialty becomes archaic. Liberal Arts provides the foundation upon which to undertake such career changes - it helps one to achieve a level of sophistication, that is breadth, that facilitates analytical thought and therefore enables one to adjust, that is to adapt to new circumstances. In other words, it counters narrowness, which hinders adaptation.

In short, the inclusion of breadth in education through Liberal Arts produces broadly educated,



competent citizens whether they are in CAS or in any of the other colleges, here or elsewhere. Without breadth, people withdraw into their own small homogenous groups, which have a difficult time communicating and otherwise interacting with other such groups, if they can communicate with them at all.

Broadly educated individuals become leaders, in law, engineering, medicine, biotechnology and so on. To produce "leaders," I believe that universities need to realize that we are at a crossroads relative to our aspirations. We can produce...

- specialists (as alums) who have a limited base from which to work and who have difficulty in adapting due to a lack of breadth in their training

or

- educated alums who can make educated decisions, who can adapt to the vagaries of life, and who have the capacity to comprehend phenomena, such as global warming.

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The world is specializing due to the deluge of information. I believe that we are obligated to meet this condition by preparing our students for the inevitable challenges as citizens

The National Geographic Society shocked us when they released the results of their 9 country survey of geographic knowledge of 18 to 24 year olds. The U.S. placed 8th! As the Society emphasized, this exposed our "lack of global awareness."

We do not have the time today to expand on each area which is critical in the basic knowledge of an educated individual, so I will mention only a few:

English - we all are fully aware of this, but let me emphasize communication skills, including spelling and grammar (a lost art).

Mathematics - we all are fully aware of this.

History - to paraphrase - 'those that don't know history are doomed to repeat the mistakes'

Ecology - This has become critical as we exceed the carrying capacity of Earth. We must understand our "place," if we are to survive

Work Ethic although not a field of study... it must be instilled in or recognized and encouraged in students if they are to succeed, they must realize the need to and put forth effort in order to reach their goals this tenet is based in a knowledge of history and sociology.

What can universities do? We can:

- encourage breadth in undergraduate education for well educated, motivated students define success

- encourage rigor. This requirement draws out the best of the students and inspires those that have become bored
- encourage faculty to strive for excellence in teaching, teaching requires large amounts of time and energy. As you know, it is not easy.

There is a recurrent effort through much of academia to create purely research faculty and purely teaching faculty. What is lost is the enthusiasm and inspiration that comes from research that is passed to the classroom students. Students learn excellence from research faculty. Faculty that perform only research lose touch with the enthusiasm of youth and our very reason for being, the students and some teaching faculty fall behind in their fields and lose energy and inspiration that is derived from research.

I corresponded with five members of the Northeastern community while preparing this. My intent was to provide a balanced presentation because the topic (Liberal Arts) ranges from communications to history to physics to economics, etc.

What I found was unanimity in the belief that there is a need for breadth of knowledge in this ever more complex world into which we are sending our alums.

I will finish with two statements which elucidate the importance of Liberal Arts and which inspired me by their eloquence...

Liberal Arts is "...important in quickening sensitivities and understanding..." [Colin Gracey]

With the "Culture Wars" between the traditionalists and fundamentalists and the modernists and secularists reaching global

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proportions, with people's professional and personal lives increasingly insecure, and with science and technology frontiers pressing incessantly into spheres where the operative question is "should we" rather than "can we," the knowledge, skills (such as critical analysis), literacy (not simply in reading, but also in the arts, science, technology, etc). and perspectives offered by the liberal arts (whether allegorical, aesthetic, historical, or ethical) have become increasingly central to human understanding.

[Gerry Herman, slightly paraphrased]

In conclusion, Liberal Arts prepares one to deal with the mosaic of life. ❁

Gwilym Jones is a professor in Biology and a Teaching Excellence Award winner. This text was taken from his speech at the Winner's Circle program in April.

Why do I need math anyway?

- Stephen Lovett

In 1994, champagne flowed as British-born Andrew Wiles completed the finishing touches on a proof that finally confirmed the 350-year old "Fermat's Last Theorem", the long sought Holy Grail of mathematics. Two years later, three brave scientists wielded the new weapon of fractal geometry and explained in one fell swoop relationships between body mass, metabolic rate and longevity that physiologists had observed for centuries but remained at a loss to demonstrate on theoretical grounds. And one year after that, I used mathematics to uncover the duplicity of an award letter that, though it guaranteed a prize of at least \$1, involved a process that would cost the average gullible respondent \$23.50.

"Why do people need math?" is a question that I hear repeatedly, and one to which I could provide more answers than most care to hear. As an instructor of mathematics, today's value



climate forces me to keep in mind the goals which motivate my teaching. I share these goals with every introspective mathematics teacher who knows how to simultaneously look back at his or her own footsteps even while observing the countryside ahead. My objectives in teaching mathematics are twofold. Firstly, to teach mathematical concepts and develop an ability to manipulate these concepts so as to provide the foundational underpinning of a specific profession. Secondly, to teach my students to think reflectively using mathematics and to make the jump from having knowledge to understanding that knowledge. Any enterprise that involves precise quantitative and qualitative analysis falls within the scope of this endeavor.

Unfortunately, prejudices prevent taking a direct route to reaching one's goals. During my first two years of teaching, I quickly discovered

that freshmen do not arrive at the university with clean slates when it comes to mathematics. Many fear math, categorically dislike math, or “know they’re just not got at it.” Often times shortsighted utilitarianism (“Is this going to be on the test?”) dogs the well-intentioned instructor at every new step, questioning the scope and purpose of mathematics. On the other hand, it is hard for instructors not to deplore the average freshman’s abilities since their crippling algebra mistakes (which should have been eradicated many years before college) testify to a fundamental miscomprehension. Mathematics is a deep subject: its branches build on each other. And without a solid foundation, any structure will fall.

I am by no means qualified to discuss the root causes, but the problems are real. Some possible sources include woefully deficient school programs, bag-of-tricks-oriented learning, high school teachers armed with little post-undergraduate experience, or the effects of an ill-informed postmodern philosophy of mathematics. I am not able to confront these causes directly but my teaching must overcome them. Fear, poor mechanics and a lack of understanding confront me daily in the classroom so I must address these, either directly or indirectly, as I strive to effectively communicate with my students. Each distinct course, each different class and every individual student requires a slightly different approach but some principles apply across the board.

In America, as opposed to many other countries, we view teaching as a highly social function. Teachers interact more with students during lectures, in discussion sections and even outside of the classroom. Consequently, my first strategy when I teach a new class is to establish some form of rapport, either through greeting students personally or by some other initial exercise. Before the first class of a course, I memorize students’ names and then during that

class I ask them to tell me their first name and I respond by giving them their last name. This simple game invariably catches students’ attention and shows them that I must care about them to have spent time learning their names.

Throughout the rest of the course, I strive to foster an atmosphere of mutual respect, strongly encouraging students to work with me individually whenever the opportunity arises. Even in the subtle details of interaction, I try to implement habits that aid students. For example, I know better than to ask, “Does anyone have any questions?” without pausing long enough to show that I truly welcome their queries. When I taught Math 1101, *Applications of Algebra*, a general education course that many undergraduates take to fulfill their math requirement, I sensed that a number of students knew they needed help but felt too intimidated to visit me during office hours. Consequently, for the rest of the quarter I reserved a room in Snell Library and changed my office hours to “study sessions”. Suddenly, the number of students coming for help rose significantly.

Over time, I’ve adapted my lectures to incorporate audiovisuals and the Internet. When learning a skill, I believe students need to see the process of how I progress from one logical step to another and hence I still use the blackboard during most of my lectures to present concepts. However, when dealing with complex geometric objects such as those presented in MTH 1223 or MTH 1240, I employ a computer projector and overheads to help students develop a more accurate geometric intuition. I also utilize overhead slides when I feel the material focuses more on the presentation of certain facts rather than the development of fundamental skills. Either way, I always try to create ways to keep students interested even if the material itself isn’t inherently captivating. As for using the Internet, I’ve begun to create course webpages to which I

attach study guides, answer sheets, challenge problems and Maple® programs that help with projects.

When I organize my lectures, I remain aware of the utilitarian aspect of modern education and I constantly point out applications of the material we cover in class to current scientific research or to other branches of inquiry. For example, when I teach engineers, I find out ahead of time what other classes many of my students take concurrently and during the course of my lectures present examples in physics, circuits or economics that may be relevant to those classes. Sometimes, I season my lectures with historical notes but I usually prefer to remain forward-looking, emphasizing more how mathematics is a part of the future than a part of the past. Furthermore, as often as possible, I clearly point out why I cover something at a given time by explaining how we will apply it later on.

As I provide vistas into other areas of math and science, I consciously choose non-trivial examples in class. My personal journey of learning and my interaction with students have convinced me that students learn through examples. Thus, not only do I work through simple examples to illustrate the theory I teach, I also carefully select difficult examples that show how to use mathematics creatively. Then, on homework, quizzes and projects, besides questions that test their mechanical skills, I always pose non-rote problems that challenge their understanding. In fact, in MTH 1240, *Chaos & Fractals*, students love and learn from the two guided research projects I assign. No matter what material I teach, I always encourage students to wrestle with questions that probe their understanding because those who refuse to give up invariably profit from the exercise.

The last major tactic I use requires a lot of time on my part, but I persist with it, as I believe it helps students more than they sometimes realize. I grade all quizzes, homework and tests and return them with comments by the next class. At times, to emphasize that they need to read my comments, I refrain from assigning a numerical grade and simply bring their attention to errors in their argument, flaws in their mechanics or areas they could investigate further on their own. Many professors have abandoned the practice of collecting and correcting homework but I still believe it is essential for students to acquire the skills we teach them.

As a whole, Northeastern prides itself on preparing students for a profession. In response to Northeastern's particular objectives, mathematics instructors concentrate on communicating knowledge, presenting valuable concepts and honing students' skills. Superimposed on this goal, we strive to deepen our students' understanding, for it is this understanding that allows one to develop new knowledge on one's own. So whether our graduates explore the foundational principles of science, program the next popular telecommunications public key cryptosystem, obtain a position at a large engineering firm or find gainful employment in any other sector of society, I strive to provide them with an education that benefits them in every aspect of work and helps them avoid becoming the next "gullible respondent". ❁

Stephen Lovett is a 2001- 2002 recipient of the Outstanding Teaching Assistant Award at Northeastern.

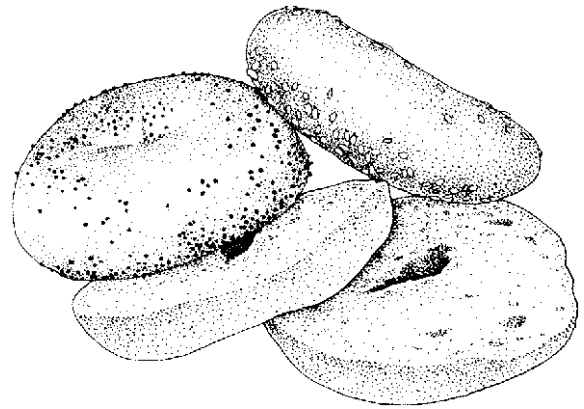
Breakfast for the Soul

- Susan Hallenborg Ventura

I was able to attend two of the three “Breakfast for the Soul” sessions offered jointly this year by the CEUT and the Office of Spiritual Life. Discussions ranged from the philosophical to the practical, but, ultimately, two central themes emerged. The first related to the tasks of the day - answering phone messages and emails, teaching classes, and interacting with other people to process those piles of paper on our desks. The second related to what we can do to make the tasks of the day more productive, meaningful, and satisfying.

Many of us described our daily routines as frenetic, stressful, and sometimes lacking in meaning. Rushing from one task to the next and trying to fit everything in does not leave a lot of time or energy for reflection. Interactions tend to be as brief as possible and at times can be met with annoyance, especially if we are interrupting what the other person is trying to “get done.” But don’t we share a common goal? Aren’t we all trying to “do” the same thing? Some of us even share the same tasks, but our failure to relate to each other in meaningful ways can leave us feeling misunderstood, frustrated, and lonely.

These sessions gave participants “permission” to talk about the kinds of things that may seem irrelevant to the work of the day, but in fact provide the very foundation for what we do. It did not take long to discover that we all work at this frenetic pace because we care about what we are trying to accomplish. Unfortunately, many of us fail miserably at showing others how much we care! One common reason is that we do not give



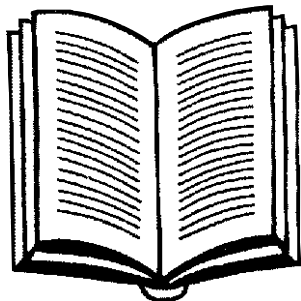
ourselves permission to take the time we need to care for ourselves. We all know it is important to attend to the health of our minds, bodies, and spirits, but how many of us really do it?

There is much wisdom in the adage that we cannot take care of others unless we take care of ourselves first. When we feel healthy and balanced and our own needs are met, it is easier to take the few extra moments needed to really listen and understand the concerns of students or coworkers. We all need an occasional reminder to reflect upon what brings meaning to what we do. I am grateful that the University recognizes this by making programs like this available to faculty and staff. ☼

Susan Hallenborg Ventura is a professor in the Department of Physical Therapy.

The Heart of Learning – Reflections of a Book Group Member

- Susan Pilaud



I joined Northeastern University's "Spiritual Aspects of Teaching" book group this academic year, intrigued by what a "spiritual" aspect of teaching encompassed.

As learned through my activities with the group, the impulse to inject spirituality into the classroom does not have to be a religious one; spirituality can offer a counter model to the competitive, corporative, and reductive side of education. I interpret this spiritual element to be the human side of teaching. It is the love, respect, and sensitivity that we as teachers show our students. It is about renewing ourselves, connecting with others, continuously questioning and improving our teaching methods, and opening ourselves to different perspectives. However, spirituality means many different things to the interdisciplinary group of educators who joined the book club.

The group was formed by the Center for Effective University Teaching in an effort to look at the more holistic side of teaching. The group, composed of twelve educators from a wide range of disciplines and positions, meets semi-monthly to discuss Steven Glazer's, The Heart of Learning: Spirituality in Education, an edited collection of essays. Over the past two quarters, our group covered the selections in the Sacredness and Identity sections of our book which includes pieces from the following authors: Parker J. Palmer, Rachel Naomi Remen, M.D., His Holiness the Dalai Lama, Judith Simmer-Brown, and bell hooks. Glazer expresses concern that our culture and educational institutions are directed towards "materialism, technology, conceptuality and

abstraction" which has distanced us from direct experience and created a feeling of isolation and separateness. He argues that to find the sacred and a sense of connection, we need to "root educational practices in openness, attentiveness to experience, and sensitivity to the world"(p.11).

Each of the authors expands upon Glazer's philosophies on rethinking the educational system and promoting openness in teaching. For example, Palmer is concerned that instead of offering "life-giving forces," our educational system today can be "death dealing" (p.16). Remen, a medical doctor whose humanistic training of physicians can extend to educators, argues that "we trade our wholeness for approval" (p.35) when we should accept hidden vulnerabilities in ourselves and in others. The Dalai Lama promotes the use of secular ethics in education, emphasizing the "tremendous potential" we have for "kindness, compassion and inner peace" (p.90). Brown recommends a contemplative approach to religious pluralism, "a commitment to communicate with and relate to the larger world" (p.100). Hooks speaks of the intimacy of teaching: "I'm not sure that in a face-to-face encounter we are really, truly able to transmit teaching to those who we do not love" (p.125).

Northeastern students can only benefit from what book club members have gleaned from these topics of discussion. Each of the members interacts with students at Northeastern in a number of ways, from co-op advising, to library assistance, to teaching law, physical therapy, engineering, and English. We have explored issues such as the need to examine psychological aspects of working with physical therapy patients, to inspiring engineering students to be open to

more than just the technical aspects of their field. One professor in the sciences expressed his concern that reductionism is one of the “most corrosive elements” in the scientific community today. He acknowledges the need for dividing phenomena into categories, but sees the dangers as well, as only reproducible experiments have meaning. I found that sharing with others strengthened my awareness of obstacles teachers and students face and encouraged me to reach out to my students in a deeper, more compassionate way.

As a group, we discussed how to deal with what Palmer calls in academia, “a culture of fear” (p.21). This fear occurs between student and teacher, as well as within the larger contexts of educational institutions. Hooks writes that we live in “a culture of domination” and that “most of my teaching experience has been in climates that are totally, utterly and completely hostile to spirituality” (p.118). Some participants in our group acknowledged that they felt the competitive nature of their own departments and we discussed ways to overcome feelings of anxiety and meaninglessness. One such way is to establish communities of like-minded people; Remen suggests, “Healing the shadow of a culture may require the formation of a subculture of credible people who value that which has been devalued by the dominant culture. This subculture confers on its participants permission for a greater wholeness and heals them” (p.38).

As a teacher of writing, I have many opportunities to bring spirituality into the classroom. I teach a workshop-type class where the students are required to take an active role and express their own ideas on the readings and topics presented during discussion. They also work in groups, give formal presentations, and regularly reflect on the process they take in writing their papers. This allows students to find ways to personally connect with the subject matter, to

move from an abstraction of the idea to a grounding of the idea in personal experience.

During our discussions and interactions in the classroom, we consider complex issues from the text that often challenge students’ ways of looking at the world. Students bring their own voices to these topics, which can cause discomfort when students question the text or other students’ opinions. Having to deal with dissonance and controversy is contrary to many students’ upbringing. I try to emphasize in my class that, as Brown argues, you cannot learn deeply unless you embrace the other: “opening up, having contact with others, really connecting, and cultivating intimacy which does not annihilate difference” (p.104). It can be a shocking process to step outside ourselves and look at the world through another’s eyes, but it can be joyful and enlightening as well.

In one class we discussed the poem “Theme for English B” and an African American student became angry when other students seemed to downplay the racial aspect depicted in it. She shared how she is aware at all times of being different in our predominately Caucasian classroom. The conversation focused on issues of privilege and the other and how they impact our lives. We talked about the messiness around topics of diversity and how our differences shouldn’t be ignored, even if it makes others feel uncomfortable. Hooks writes that we must teach our students to have compassion for each other, for “there is something to be learned from listening, especially listening to someone who is not like you” (p.121). They learned there is a lot going on outside of their individual orbits of which they should be more aware.

Palmer writes that education is not just about getting information or a job—it is “about finding and claiming ourselves and our place in the world” (p.18). The “Spiritual Aspects of Teaching” book group raises consciousness of the more

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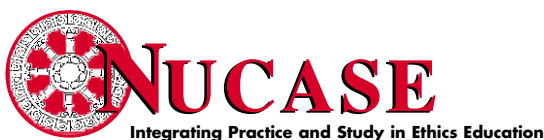
human yet intangible qualities of learning that we cannot forget while Northeastern continues to expand into a premier university. While the Dalai Lama is impressed with the Western educational system's "many material resources," and "perfection of so many aspects of intellectual development," he believes what is lacking is "the

dimension of enhancing and developing the heart" (p.87). In the midst of our successes, we in academia must not neglect tending to the heart. ❁

Susan Pilaud is a lecturer in the Department of English.

Reflection as the Basis for Practice-Oriented Ethical Inquiry

- Joe Raelin, Center for Work and Learning



I boldly assert there is an absolute link between practice-oriented education and ethical inquiry, especially as it relates to this newsletter issue's focus on reflection. Reflection may be the fundamental key that unlocks theory from practice in the practice or work setting. Further, we have found that the subject matter for reflection sooner or later heads into the domain of ethics.

Reflection is the practice of pondering the meaning to self and/or to others in one's immediate environment about what has recently transpired. It illuminates what has been experienced by both self and others, providing a basis for future action. It thus constitutes the ability to uncover and make explicit to oneself and to one's colleagues what one has planned, observed, or achieved in practice. In particular, it privileges the process of inquiry leading to an understanding of experiences - actions, beliefs, and feelings - that may have been overlooked in practice. This definition suggests three aspects of reflection in practice-oriented settings that are often overlooked; first, reflection should be

collective or public, second, reflection should be contemporaneous, anticipatory and retrospective, and third, that it be critical. Let's begin with reflection's collective nature.

By proposing that reflection be public, I am stipulating that it be divulged in the company of others who are also committed to the experience in question. It is a form of learning dialogue. Rather than constitute an exchange of statements of points of view, dialogues surface in the safe presence of trusting peers the ethical, social, political, and emotional data that arise from direct experience with one another. Often these data are precisely those that might be blocking true inquiry. Learning dialogues also are concerned with creating mutual caring relationships.

Plato had the idea of relationships in mind when in Apology, he quoted Socrates' now famous phrase: "...the unexamined life isn't worth living." Whenever I have heard this maxim used, it appeared to be misinterpreted as a call for "additional" introspection by people. Although more introspection may be helpful, the actual meaning is that we need to discuss with others our life's experience and meaning. As human beings we learn about our self in relation to others through language; communication allows us to validate our behavior. Through reflection we examine the responses of others to determine if

our participation in our social communities is helpful. Accordingly, we learn that our self is formed as much from how others respond to us as from what we do. The self, then, is linked to the social communities that give it definition.

I have also stipulated that reflection be contemporaneous in addition to its more common anticipatory and retrospective time orientations. Anticipatory reflection occurs prior to the experience often in the form of planning as learners suggest to themselves and to their peers how they might approach a given situation. Retrospective reflection recollects a recent experience, often in the form of assessment or evaluation. Contemporaneous reflection occurs in the moment. It is a “reflection-in-action”, in the midst of performance, that helps us reframe unanticipated problems to see experience differently.

Finally, I have suggested that reflection be critical. When reflection engages our critical consciousness, it probes to a deeper level than trial-and-error experience. It is concerned with forms of learning known as “double-loop” and “triple-loop” learning, both of which seek to challenge the standard meanings underlying our habitual responses. In double-loop learning, we challenge our assumptions sufficiently to question the transfer of learning from one context to another. In triple-loop learning, we learn about the “context of contexts” in order to challenge our premises and entire frame of reference.

Acknowledging reflection’s collective, contemporaneous, and critical natures can help us understand its contribution to ethical inquiry. Through civil discourse we begin to appreciate our whole selves that, in turn, can help us reach agreement about disputed claims in society. Critical consciousness enhanced through contemporaneous public reflection helps us recognize the connection between individual problems and the social context within which they

are embedded. Once this connection is made, learners can participate in educational projects that may transform their world by their very participation in it. They acquire intellectual humility, empathy, and courage, allowing them to desocialize discovery and link experience with text. They learn to consider data beyond their personal taken-for-granted assumptions and begin to explore the historical and social processes that in enveloping the self foster the consideration of universal ethical principles.

Let’s consider a hypothetical case of a grad student, named Charlie, who having completed his Chemistry degree, was considering whether to accept employment in a military laboratory known to sponsor research in biological warfare. Charlie considered this form of research reprehensible, but the offer was by far the most lucrative. It would help decrease nine years of student loans and help pay for a critical transplant operation that could save his mother’s life.

Charlie contemplated the offer for nearly two months, without any clear sign of a decision. The pros and the cons seemed to balance each other out. Fortunately, he was able to convene an informal lab group that had begun to meet casually after work two years ago. Although the group originated as a social gathering, it soon became more than that. It became a support network in which people felt free to reveal personal and professional problems for deep consideration by one another. Charlie was able to introduce his dilemma while in the midst of the decision process. His network colleagues listened intently to his predicament and offered their support as well as a range of possible solutions. Although some had very strong views about the mission of the laboratory, they were most concerned that Charlie think through the countervailing ethical principles that could ultimately guide his decision. For example, how would he balance the utilitarian value of possibly

saving his mother's life against the destructive use of the weapons he would be contributing to produce, not to mention the drain on his own conscience? His colleagues also probed a number of the assumptions in use; for example, whether the lab's agenda could be reformed or whether he was the only source of funds for the transplant operation.

We see in this example that Charlie was able to use all three aspects of reflective practice. In addition, his sense of ethical responsibility was triggered not by a slogan from a broadsheet handed to him at a rally but from his very discovery of and involvement in the issue in a personal context. The case brings to mind the opportunity available to teachers to emulate the conditions reported here in the design of practice-oriented pedagogical experiences. For example,

learning teams can be assembled to help learners in practice contexts inquire collectively with their peers on matters of personal and professional consciousness. Teachers or others willing to adopt a minimalist intervention style that permits learners to manage their own process of self-discovery can facilitate the teams.

Let me finish with a story, that in slightly altered form, demonstrates Sigmund Freud's appreciation of reflective practice as a means of ethical inquiry, even on his deathbed. One of his students approached him and, seeing how much pain he was in due to an afflictive mouth cancer, sheepishly uttered: "I presume your illness is so serious that you won't be interested in critically examining the paradoxes of psychology." Freud's immediate retort was: "My illness is fatal but not serious."✿

CEUT in Retrospect

- Donna M. Qualters and Miriam Rosalyn Diamond

As another academic year comes to a close, it is time to be mindful and reflect about our own practice. Over the past three years, the CEUT has grown and expanded to meet the needs of the Northeastern teaching faculty. We have also developed programming to support the work of our teaching assistants in their various roles in undergraduate education.

As the CEUT staff considers how best to meet the needs of faculty, and experiments with different types of programming, we've noticed some trends. In an interesting way, these trends often run counter to accepted faculty development practices.

Perhaps because of our rich history as a cooperative education institution and the idea of learning from practice, Northeastern faculty are less interested in teaching workshops that talk about practice in isolation. These workshops have

declined in popularity. Instead, we have seen an amazing growth in our SGID/Midterm feedback program. Each year, we have been able to review a total of 50 courses, and most quarters, there is a waiting list of participants. This program gives professors feedback on their REAL practice as they teach. We've also been oversubscribed in CEUT programs such as our Book Group and our Breakfast for the Soul (in conjunction with the Spiritual Life Office). These programs create communities of practice where we can come together with colleagues to talk about our work to learn, share, and support each other.

We have also had more celebrations of our work! This year CEUT hosted the first annual Teaching Excellence Winner's Symposium. This event brought together almost 80 faculty to explore the scholarly and intellectual aspects of teaching. Again, this was an activity that provided a vibrant community of practitioners who engaged in

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spirited conversation, raising some significant issues about education.

Our Teaching Assistant Development and Recognition program is now a fully integrated element of University training for graduate teaching assistants. In response to the requests of returning Northeastern TA's, we have introduced a Fall Symposium that builds upon existing skills and experience. In addition, we have credentialed over 26 graduate students University-wide for completing a longitudinal training program in education, including the production of teaching portfolios. This year we will be inaugurating a Leadership credential to recognize those who have taken on the role of trainers for other TA's, as well as excelling in their own preparation.

We have also reorganized this publication. Each edition of Teaching Matters now revolves around

a theme related to instructional development. Recent copies have addressed the topics of ethics and change. Future editions will focus on active learning, assessment and evaluating student work.

As we look to the future, we look to YOU, the Northeastern faculty; to help us continue to craft programs that will enrich the intellectual and scholarly teaching life of our campus. If you have requests, suggestions, or ideas as you review your end of academic year work, please share those with us. We look forward to continuing to work with you as we move to a new semester model. ✿

Donna Qualters is the Director of the CEUT and Associate Professor in the School of Education.

Miriam Diamond is the Assistant Director of the CEUT.



The purpose of the Jonas Chalk "Chalk Talk" column is to initiate a dialogue on best practices, successes, and frustrations in teaching. (Although the concerns covered are often universal, we do put a particular emphasis on the challenges and rewards of teaching freshmen.) This column hopes to stimulate, engage and occasionally nudge professors to share their wisdom and ideas about the best ways to achieve outstanding learning outcomes in. Readers can submit letters, questions, or ideas that you have to jchalk@coe.neu.edu.

Old Jonas columns can be accessed at: <http://gemasterteachers.neu.edu/documents/documents.html>

Dear Jonas:

Is it better to teach what the students want to learn, or what we faculty feel is important to teach?

My faculty colleagues (some of whom have won teaching and/or research awards) and I are struggling with deciding whether we teach class material as stated in the published departmental course descriptions, at the level we feel is necessary for subject mastery, or at a lower level, with less challenging homework assignments and tests. While we understand that we have a responsibility of educating our students at a certain level of

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proficiency, we often find that by pushing hard and by raising expectations, the students get frustrated. Occasionally students will simply refuse to complete an entire homework assignment, because of excessive time required to finish it.

Since our teaching is evaluated entirely by students, and our job performance is judged by our Department Head and Dean using this student evaluation, it is important that we appeal to the students' sense of quality teaching, and not alienate them. "Excessive work load" consistently contributes to a less than excellent review. In short, it is easier for a professor to do well on student evaluations by simplifying the course and making the students think they are doing just fine, then by formulating interesting and motivating, but challenging homework and tests.

The more idealistic professors will stick to their guns and do their best to teach the rigorous syllabus of course material. But it is tough to continue to be idealistic when the students criticize you for being too tough and the administration penalizes you for expecting too much of your students.

Signed,

Still a little idealistic?

Dear Still a Little Idealistic,

"Is it better to teach what the students want to learn or what the faculty feel is important to teach?" My answer is YES! Learning is a two way street, neither the faculty member nor the student can be held solely responsible for learning. Unless we view our students as partners in the enterprise we're doomed.

You've posed a very important question, and a short answer can only begin to address the issues. Of course faculty know what's important to teach and most definitely must have interesting and challenging assignments that stretch students and push them to their academic limits. That's what learning is all about. BUT it's not that simple.

As you pointed out there are limitations such as being evaluated only by students, though national studies and one done here show that easy did not translate into higher ratings. I think motivation theory might provide a roadmap for faculty to help them retain the rigor and still meet students' needs. Research tells us that motivation or discouragement can be the result of creating disequilibria in students, BUT that positive disequilibrium is found somewhere between what's too easy (bores them and kills motivation) and what's too difficult (frustrates them and kills motivation). Careful scaffolding of supports when teaching create the right balance that challenges students and keeps them interested enough to work hard. That's important because motivation research also tells us that students will learn what they want to learn (i.e., what they are motivated to learn). So when they say, "it's too hard", they might mean, "it's irrelevant" to them. Teachers should make connections between what they are presenting and why and what the student knows, so students can perceive the value of learning the material. We know the value and relevance, they often don't.

How does one determine if positive disequilibrium has been established? Instructors have a responsibility to be fair in terms of judging the level of difficulty and the workload. If an instructor simply plows ahead with his or her agenda without adjusting for student comments (particularly if they are spread across all ability levels), then I'd argue that the instructor is not doing a good job as a teacher.

There are mechanisms, both formal and informal, that instructors should use to check the decisions they've made about a course. On a formal level, most departments have an undergraduate or discipline committee where instructors can come to a consensus about course content based on student-faculty feedback. Less formal is feedback from listening to your students during the term (even inviting their comments), particularly those you believe are the best students. If strong students are struggling in a course because of the degree of difficulty or workload, the rest of the class will clearly be left in the dust. You could also use a mid-quarter evaluation that you administer to check how students are doing.

Can one be challenging and rigorous with high expectations, and still motivate students and still get good teaching evaluations? Absolutely! If you create positive disequilibrium and curiosity in students, balance support with demands, and give them some real applications, they'll work hard and evaluate you fairly. This is a simple answer to a complex question, for a more detailed explanation of how to be challenging (not overburdening) and have students work hard and learn, take a look at the book by Wankat and Oreovicz (1993) on Teaching Engineering. It's available in PDF format by chapters at www.asee.org/publications/teaching.cfm. I think it'll be worth the time and energy.

Thank you for your provocative question.

Jonas

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The Center for Effective University Teaching
225 Hayden Hall
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Director, Donna M. Qualters - Editor-in-Chief
Assistant Director, Miriam R. Diamond - Editor
Evaluation Coordinator, Audrey Aduama - Contributor & Photographer
Administrative Assistant, Kristen Jacquard - Contributor, Layout & Design
Administrative Assistant, Cynthia Sanders - Contributor
Graduate Assistant, Vanna Lee - Contributor
Graduate Assistant, Peri Dreyfuss - Contributor
Phone: 617.373.8583
Fax: 617.373.7531
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