
The Academic Bookshelf

KARL A. SMITH AND TONI A. H. MCNARON

DIVERSITY

One of the greatest challenges I faced as co-coordinator of the Bush Faculty Development Program for Excellence and Diversity in Teaching at the University of Minnesota was helping science, mathematics, and engineering colleagues recognize the importance of the discrepancy between the rapidly growing diversity of the population and the lack of diversity among the student body. My most memorable exposure to these issues was the September 1997 conference held at Penn State “Best Practices in Diversity: Exploring Practical Applications for the 21st Century.” It was a real eye-opener for me to see and hear so many people deeply engaged in “making the great diversity of our nation work for the future” (from Graham Spanier’s welcome letter). The conference was particularly memorable because it came at the beginning of my sabbatical leave at Michigan State University and since they had so many students, faculty, staff, and administrators participating in the conference, they chartered a bus and we rode with one another from Lansing to State College and back.

In doing this column I asked Toni McNaron, Professor of English and Women’s Studies, and founding coordinator of the Bush Faculty Development Program for Excellence and Diversity in Teaching, to work with me.

We decided to open with our thoughts on the question, “Why bother?”

First, there is little attention paid and little willingness to recognize that not all students are the same. University of Minnesota Astronomy professor Larry Rudnick once said “I used to think all students learn exactly the same way I do; perhaps a little slower.” It seems that many faculty feel this way not only about learning styles but about many other things as well—outlook, cultural or ethnic background, experience, motivation, expectations, and sexual orientation. Not only is this “sameness” approach simpler and easier, it’s also safer. If faculty only have to design one instructional system, a “one size fits all,” and probably the one they experienced as a student, then it’s familiar and manageable. If faculty acknowledge that learners are different then they must face lots of unknowns, and more work.

The consequences of ignoring differences are enormous. For example, students from some cultures (some Native Americans and Asians) are reluctant to correct others or to make them look bad in front of their peers. Students face this in situations like the individual test followed by a group test format where individual students get a higher score but don’t contradict the group during the group exam portion. When asked a typical response is “In my culture it’s unacceptable to correct someone else.” One group dealt with this by always having the Asian-American student go first during the group exam portion.

Furthermore, ignoring differences makes many people feel unwelcome, which we address in the next section.

Second, the demographics of the United States are changing very rapidly and undergraduate engineering enrollments don’t reflect the broader diversity. Often people don’t choose to be in situations where they don’t see some of themselves mirrored.

This point was stressed by Wm. A. Wulf, President of the National Academy of Engineering. He wrote “Diversity in Engineering” for *The Bridge* (vol. 28, No 4, Winter 1998) and opened the article with the following:

“Every time an engineering problem is approached with a pale, male design team, it may be difficult to find the best solution, understand the design options, or know how to evaluate the constraints.”

Wulf made a case for the connection between diversity and creativity, as indicated by the following:

“Collective diversity, or diversity of the group—the kind of diversity that people usually talk about—is just as essential to good engineering as individual diversity. At a fundamental level, men, women, ethnic minorities, racial minorities, and people with handicaps, experience the world differently. Those differences in experience are the “gene pool” from which creativity springs.”

If people don’t see themselves represented then it’s hard for them to be interested in the designs, products, and services created by engineers. Furthermore, engineering is going to be deprived of marvelous talents.

Finally, it’s the law of the land. At least three times (Brown vs. Board of Education, Title IX, PL 94-142) the United States Supreme Court and Congress have re-emphasized that all citizens have equal rights and opportunities. Essentially these three decisions and laws stress that all individuals, regardless of differences, have a right to access to the broader peer group!

The next question we discussed was “How to create awareness and a climate for valuing differences.” In the Bush Faculty Development Program at the University of Minnesota, we started with a learning styles approach to help the faculty gain a better sense of the variety of learning styles among themselves. Both in the Bush Program and in this column we try to move the conversation beyond simply looking at diversity of learning styles to the broader questions of diversity versus multiculturalism, and to rethinking our approaches in and out of the classroom.

The books we chose address not only some of the “why bother?” but also some of the “how to?” We selected books from the enormous list on the topic of diversity and multiculturalism that we think will be most helpful to the readers of the *Journal of Engineering Education*.

The Shape of the River: Long-Term Consequences of Considering Race in College and University Admissions
by William G. Bowen and Derek Bok
Princeton University Press, 1998.

The Shape of the River is a tour-de-force effort that provides a thorough analysis of the academic, employment, and personal histories of more than 60,000 white and African-American students who attended the most academically selective universities between the 1970s and the early 1990s to determine the long-term consequences of considering race in admissions.

The public response was extraordinary, as indicated by the following selection of comments from the back cover of the paperback edition:

"On the strength of the author's credentials the reader can expect much, and much is delivered.... All this data is brought to bear with great force on virtually every important issue involved in the debate.... *The Shape of the River* is a monumental achievement. Its foundation is so solidly anchored to a bedrock of data it will be relied upon as a navigational beacon for years to come." Robert E. Thatch, *Science*.

"No study of this magnitude has been attempted before. Its findings provide a strong rationale for opposing current efforts to demolish race-sensitive policies in colleges across the country.... The evidence flatly refutes many of the misimpressions of affirmative-action opponents." *The New York Times*, September 14, 1998.

Many more editorial comments are available on the Amazon.com web site including:

"What is good for business in this case is good for society too—good for us all. This report may, at last, make that fact evident even to the most obtuse." Gary Wills, *The Plain Dealer*.

The second printing (2000) and paperback edition included a Foreword by Glenn Loury that revisits the basic logic behind race-sensitive policies and underscores the need for confronting opinion with fact. It also included a new introduction, which reiterated the aims of the project, summarized lessons learned, and offered the following suggestions for looking ahead:

1. Work hard to build larger pools of well-qualified minority students.
2. Invest sufficient resources in the admissions process and in assessing performance.
3. Find ways to improve the in-college academic achievement of the minority students being admitted to academically selective colleges, including both their graduation rates and grade point averages.
4. We need to be much more open in talking about race-sensitive admissions and how well these policies have worked.
5. Finally, speak out! Leaders of colleges and universities, including Trustees, need to be more active and effective than they have been in explaining and defending their admissions policies to a broad public.

We commend this fine work to all readers (and especially those with a quantitative bent) concerned about improving the representation of all people in our colleges and universities.

"Why Are All the Black Kids Sitting Together in the Cafeteria?" And Other Conversations About Race

By Beverly Tatum

Basic Books, 1997, 270 pp.

Beverly Tatum advocates that race identity is a positive developmental factor for young people of color and that it is important, even necessary, for Black adolescents to have a strong sense of belonging. She begins by noting the racial segregation that occurs in many public meeting places, high school cafeterias, for example. Tatum astutely contrasts the frequent question "Why are all the Black kids sitting together?" with the absence of the question "Why are all the White kids sitting together?"

Tatum notes that it doesn't begin that way—"If you walk into racially mixed elementary schools, you will often see young children of diverse racial backgrounds playing with one another, sitting at the snack table together, crossing racial boundaries with an ease uncommon in adolescence." Moving to middle and high school level she notes that more and more racial grouping occurs, and she asks "What happens?" Her answer is "puberty" and the search for personal identity. For Black youth, asking "Who am I?" includes thinking about "Who am I ethnically and/or racially? What does it mean to be Black?"

The center of Tatum's conversations is an understanding of racial identity, "the meaning each of us has constructed or is constructing about what it means to be a White person or a person of color in a race-conscious society." She includes conversations about racism and advocates "We cannot talk meaningfully about racial identity without also talking about racism."

"*Why Are All the Black Kids Sitting Together in the Cafeteria?*" is focused on stimulating thoughtful conversations and helping faculty transform their curricula and interact with students of color in ways that facilitate rather than hinder those children's academic success. The five sections of the book are: A definition of terms, Understanding blackness in a white context, Understanding whiteness in a white context, Beyond black and white, and Breaking the silence. What Tatum invites us to do is begin to recognize, analyze and even critique whiteness as a racial category so that we stop seeing only behavior by people of color as strange or confrontive. Furthermore, she offers a persuasive argument for supporting at least temporary separatism, perhaps especially within academic settings where African American students and other students of color are so visible and so vulnerable. If we ignore her invitation, we will continue making everyone different from us into "others" while leaving our own values and practices entirely unexamined.

Teaching to Transgress: Education as the Practice of Freedom

by bell hooks

Routledge, 1994, 216 pp.

Rereading bell hooks' *Teaching to Transgress* jarred Karl into reflecting how little progress has been made in transforming higher education since his days as a graduate student in educational psychology where he read Paulo Freire's *Pedagogy of the Oppressed*, Herb Kohl's *36 Children*, John Dewey's *Education and Experience* and so many other books that hooks refers to. Her reflections on school experiences resonated with us:

"Accepting the teaching profession as my destiny, I was tormented by the classroom reality I had known both as an undergraduate and a graduate student. The vast majority of our professors lacked basic communications skills, they were not self-actualized, and they often used the classroom to enact rituals of control that were about domination and the unjust exercise of power. In these settings I learned a lot about the kind of teacher I did not

want to become... In graduate school I found that I was often bored in classes. The banking system of education (based on the assumption that memorizing information and regurgitating it represented gaining knowledge that could be deposited, stored and used at a later date) did not interest me. I wanted to become a critical thinker (p. 5)."

hooks' proposes that there is a serious crisis in education. She states that "Students often do not want to learn and teachers do not want to teach." Student motivation (or lack thereof) is a common comment and concern of the faculty we work with. hooks' is optimistic and passionate as indicated in the following:

"The classroom remains the most radical space of possibility in the academy... With these essays, I add my voice to the collective call for renewal and rejuvenation in our teaching practices... I celebrate teaching that enables transgressions—a movement against and beyond boundaries. It is a movement which makes education the practice of freedom.(p. 12)."

Teaching to Transgress covers a lot of territory, beginning with an essay on Engaged Pedagogy. hooks' adopts Thich Nhat Hanh's philosophy of engaged Buddhism, the focus on practice in conjunction with contemplation, and notes its similarity to Freire's emphasis on "praxis"—action and reflection upon the world in order to change it.

She notes in the second chapter, *A Revolution of Values: The Promise of Multicultural Change*, that "it is painfully clear that biases that uphold and maintain white supremacy, imperialism, sexism, and racism have distorted education so that it is no longer about the practice of freedom. The call for a recognition of cultural diversity, a rethinking of ways of knowing, a deconstruction of old epistemologies, and the concomitant demand that there be a transformation in our classrooms, in how we teach and what we teach, has been a necessary revolution—one that seeks to restore life to a corrupt and dying academy."

There are lots of similarities between hooks' ideas for transforming the academy and Parker Palmer's ideas in *The Courage to Teach* (summarized in the *Journal of Engineering Education*, vol. 88, no. 1, January, 1999). For example, hooks' states that "To create a culturally diverse academy we must commit ourselves fully. Learning from other movements for social change, from civil rights and feminist liberation efforts, we must accept the protracted nature of our struggle and be willing to remain both patient and vigilant. To commit ourselves to the work of transforming the academy so that it will be a place where cultural diversity informs every aspect of our learning, we must embrace struggle and sacrifice (p. 33)."

In chapter 3, *Embracing Change: Teaching in a Multicultural World*, hooks' advocates that "Making the classroom a democratic setting where everyone feels a responsibility to contribute is a central goal of transformative pedagogy (p. 39)." She claims that students are much more willing to surrender their dependency on the banking system of education than are faculty. We hope this is the case but students have been thoroughly socialized in the banking system and often even our best students are reluctant to change. We agree with hooks' assumption that "we must build 'community' in order to create a climate of openness and intellectual rigor." Her thought that "a feeling of community creates a sense that there is a shared commitment and a common good that binds us" is central to transforming the classroom.

bell hooks is one of the clearest theorists about race as it impacts education at all levels within American society. She lets no one escape unchallenged about the barrenness that lies at the heart of a received educational system or the peril that accompanies resistance to changing pedagogical strategy to accommodate the realities of today's student body and to respond to 100 years of educational research about what makes for effective education.

Educating Citizens in a Multicultural Society

by James A. Banks

Teachers College Press, 1997, 172 pp.

James Banks' *Educating Citizens in a Multicultural Society* is part of a series on multicultural education that includes *Multicultural Education, Transformative Education, and Action* (Banks, 1996) and the series is based on a conceptual framework that includes content integration, the knowledge construction process, prejudice reduction, an equity pedagogy, and an empowering school culture. *Educating Citizens in a Multicultural Society* provides a thorough historical perspective and comprehensive summary of the educational research literature (over 15 pages of references).

Banks' documents the increasing diversity of our schools: "In 50 of the nation's largest urban public school systems, African Americans, Hispanics, Asian Americans, and other students of color made up 76.5% of the student population in 1992... Students of color will make up about 46% of the nation's student population by 2020 (p. Vii)." He documents the challenges that people of color face in comparison to mainstream males: "Groups of color have experienced three major problems in becoming citizens of the United States. First, they were denied legal citizenship by laws. Second, when legal barriers to citizenship were eliminated, they were often denied educational experiences that would enable them to attain the cultural and language characteristics needed to function effectively in the mainstream society. Third, they were often denied the opportunity to fully participate in mainstream society even when they attained these characteristics because of racial discrimination (p. Xi)."

Equity pedagogy, which actively involves students in a process of knowledge construction and production, is one of the strategies Banks' presents for fostering change. Equity pedagogy challenges the idea of instruction as transmission of knowledge where the professor is the source of knowledge and wisdom and the students are passive recipients. It alters the traditional power relationship between faculty and students, and assumes a close connection between knowledge and reflective action (See Academic Bookshelf, *Journal of Engineering Education*, vol. 86, no. 2, April, 1997). "Equity pedagogy creates an environment in which students can acquire, interrogate, and produce knowledge and envision new possibilities for the use of knowledge for societal change (p. 79)." Equity pedagogy is guided by the following assumptions (p. 79–80):

1. There is an identifiable body of knowledge, skills, and attitudes that constitute critical attributes of equity pedagogy.
2. Critical attributes of equity pedagogy can be identified, taught, and learned.
3. Competencies in equity pedagogy can be developed through formal instruction, reflection on life experiences, and opportunities to work with students and colleagues from diverse populations.

4. All teachers need to be able to competently implement equity pedagogy and related teaching strategies because all students benefit from them.
5. In-depth knowledge of an academic discipline, pedagogical knowledge, and knowledge of students' cultures are prerequisites for teachers to successfully implement equity pedagogy.
6. Competency in equity pedagogy requires a process of reflection and growth.
7. Equity pedagogy cannot be implemented in isolation from the other four dimensions of multicultural education described above (in first paragraph). It is interrelated in a complex way with the other four dimensions.

Though we have focused on these particular books because of their powerful impact on one or both of us as we seek to reach more of the students in our classes, we want to at least signal to you the existence of other trenchant studies dealing with teaching within a multi-cultural context.

Teaching for Diversity

by Laura L.B. Border and Nancy Van Note Chism, Editors
New Directions for Teaching and Learning, Number 49, Spring 1992, 120 pp.

Beyond a Dream Deferred: Multicultural Education and the Politics of Excellence

by Becky W. Thompson and Sangeeta Tyagi, Editors
University of Minnesota Press, 1993, 267 pp.

The Courage to Teach: Exploring the Inner Landscape of a Teacher's Life

by Parker Palmer
Jossey-Bass, 1998, 256 pages. (Reviewed in Journal of Engineering Education, vol. 88, no. 1, January, 1999). Also see Parker's latest book Let Your Life Speak: Listening for the Voice of Vocation, Jossey-Bass, 2000, 117 pp.

Human Relations: Valuing Diversity

by David W. Johnson and Roger T. Johnson
Interaction, 1999.

Access Denied: Race, Ethnicity, and Scientific Enterprise

by George Campbell, Jr., Ronni Denes, and Catherine Morrison,
Oxford University Press, 2000, 340 pp.

What all these books have in common is an implicit or explicit call to faculty in every discipline to begin to engage in a paradigmatic shift from thinking exclusively about how to be a good or better teacher to searching for the most effective ways to facilitate learning. As long as we focus only on good teaching, we keep ourselves in the center of our screens. Only when we make a leap into the domain of learning will we begin to focus on our students as separate and distinct individuals, who learn in a vast array of modalities which are in turn shaped by many factors, an important one of which may be racial or cultural or ethnic identity and background. Faculty may no longer hide behind the cloak "it doesn't apply to me" but must instead embrace their fear and change.

In this era of extraordinary information availability and access, why do we need to bring people together to share a common space

and time? It is no longer to get access to information! We must think about the opportunities for interaction (among students, between student and faculty, and between learners and academic material) and for forming and nurturing "communities of practice" among diverse learners. The current and probably future workplace is one where work is done in groups. Students who spend the bulk of their time in individualistic learning and competitive classrooms, interacting only with people who are like them, will not be adequately prepared for the workplace (or learning place) of today or tomorrow. We must give our students more things to do in the learning process rather than handing them more formulae or theories distinct from practice and application.

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