“Education is the passport to the future, for tomorrow belongs to those who prepare for it today.” Malcom X

Welcome to the North Orange County Community College District (NOCCCD)! This handbook was created in an effort to provide you with various resources you can use throughout your teaching career. In it you will find multiple resources ranging from new innovative teaching practices, to classic articles and tools proven to be effective over the years. Additionally, this handbook gives you tools to help you put together your own teaching portfolio, including materials you will need to apply for a teaching position at a community college. In this digital age, a lot of material can be found online, which is why we will also provide you with access to additional resources (available only online). Our hope is that you will find this content helpful.

Teaching at the college level can be challenging as most of the pedagogical programs are focused on teaching K through 12 grades. The training required to teach at the college-level centers on specific disciplines and research, hardly ever is andragogy (or the teaching of adults) discussed in graduate programs. The idea of a teaching portfolio is one where future community college faculty can compile both tools for effective teaching, as well as documents and materials and resources to apply for a teaching position. This portfolio is designed to enable you to add achievements and resources to your curriculum vitae that would help you stand out as a future instructor/faculty when you apply for a teaching position.

The handbook is divided into different chapters with relevant themes. These resources were created and compiled by the Diversity Equity & Inclusion Faculty Fellows and the NOCCCD Office of Diversity & Compliance. Some of us started our teaching career as interns in our district many years ago and found that having a handbook and teaching portfolio was very helpful. Our hope is that you will as well. We are excited to welcome you to the Future Instructor Training Program!

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|  | • Are you a Model Teacher?  
|  | • Chickering Gamsons Seven Principles of Good Practice in Undergraduate Education  
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|  | • The Syllabus as Promise  
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|  | • Toolkit- Deficit Thinking  
|  | • Studying Excellence in Teaching: The Story so Far  
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|  | • Ten Things Everyone Should Know About Race  
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|  | • Whose Culture has Capital  
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I. Program Goals, & Important Dates

- About the F.I.T. Program Goals & Expectations
- Fall Semester Calendar
- F.I.T. At a Glance
- Pluralism Inclusion & Equity Events
About the Future Instructor Training Program

Purpose

The Future Instructor program addresses the future potential of human resources concerning training and hiring instructors able and ready to become community college professors of quality. The purpose of the program is to foster growth of the next generation of community college faculty with a focus on serving the growing diverse population with faculty candidates who will help support education in this direction. Statistics from the state chancellor’s office show that 70% of community college students are students of color, and yet only 35% of community college tenure/tenure track faculty are faculty of color. Similarly, district demographics show that 71% of NOCCCD students are students of color, while only 41% of NOCCCD faculty are faculty of color. The mission of the California Community College system is to serve all Californians. With most community college students being ethnic minorities and from diverse backgrounds, reason dictates that serving those populations is part of its mandate and is necessary for a brighter economic future in the state.¹

Goals

The goals of the Future Instructor Training Program is as follows:

(a) To enhance the recruitment of qualified persons pursuing the master’s or doctoral degrees, or both, into faculty positions in community colleges in California. This is particularly important for disciplines for which recruitment is difficult and where underrepresentation exists. To accomplish this purpose, the F.I.T. Program shall

¹ In addressing the diversity of our student population, the program will also consider other forms of diversity and will not limit diversity to only mean gender, race, and ethnicity.
serve to introduce graduate students to the community college environment and student population.

(b) To enhance the recruitment of qualified persons pursuing an associate degree into faculty positions in community colleges in California. This is particularly important for disciplines for which current industry experience is important and disciplines for which recruitment is difficult and in which diverse faculty are underrepresented. To accomplish these purposes, the internship program shall serve to introduce industry practitioners to the community college environment and student populations while encouraging them to complete their associate degree.

(c) To enhance community college efforts toward building a diverse and representative faculty. To accomplish this purpose, the internship program shall place special focus on locating and attracting qualified graduate students who are members of underrepresented groups.

(d) To enhance and develop the intercultural competencies of new faculty and to provide aspiring faculty with the tools and skill necessary to infuse concepts of diversity, equity, multiculturalism, and inclusion into their teaching styles and curricular content.

Expectations

Mentor and Intern Duties and Responsibilities

The interns will attend the mentor’s classroom for at least one Carnegie-hour per week. They will attend mandatory training seminars. Interns will also be provided the
opportunity to discuss and share their experiences in organized cohort group sessions. Interns will keep records, including a journal of reflection during the program to be submitted and reviewed by the mentor and committee. The program will consist of regular attendance in the professor’s classroom, regular activity with the cohort for training purposes, and regular review of skills observed and learned.

The mentor and intern will agree, in contract form, to a minimum number of lessons and/or class sessions for the intern to teach, under the aegis of the mentor. Suggested intern-led activities include: guided in-class discussions, followed by formal lectures or lessons (dependent upon the field), and followed by the intern leading a class project, as a capstone activity. These three (3) minimum activities should be spaced through the semester/term. More activities may be scheduled.

The intern must show growth as a future instructor for a positive report to be submitted by the mentor to the project committee. The intern is expected to attend the mentor’s class, and engage in observation, at approximately the same hours of which the mentor spends in the same class. Mentors are also expected to hold mentor-intern meetings regularly, at least once a week with a minimum of two (2) hours per month. Both interns and mentors are required to attend training, not all trainings will be applicable to mentors. The mentor’s duty is to guide the intern through the process of learning to teach effectively at a community college. This will be done through guidance, mentorship, and collegiality. Intern presence in department and division meetings and activities, to their benefit, will be encouraged and may be negotiated between intern and mentor.
# Fall Semester Calendar of Workshops and Events

## August 21, 2019

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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</table>
| 8:00 a.m. – 2:30 p.m. | Mentor and Intern Orientation  
NOCCCD (Anaheim Campus), Room 105 |

## September 13, 2019

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<thead>
<tr>
<th>Time</th>
<th>Event</th>
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</table>
| 9:00 a.m. – 12:00 p.m. | Workshop: Infusing Equity, Diversity & Inclusion in Teaching  
Presented by M. Leonor Cadena & Katheryn McGuthry  
NOCCCD (Anaheim Campus), Room 107 |

## September 19, 2019

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<tr>
<th>Time</th>
<th>Event</th>
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| 4:30 p.m. – 6:00 p.m. | “Border South” Documentary Screening  
Cypress College Theater |
| 6:00 p.m. – 8:00 p.m. | “Hostile Terrain” Exhibit Opening and Reception  
A Global Pop-Up Exhibit on the United States’ Humanitarian Crisis at the Southern Border  
Presented by Dr. Jason De León, Professor of Anthropology and Chicana/o Studies, University of California, Los Angeles  
Cypress College Fine Arts Lobby |

## October 11, 2019

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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</table>
| 9:00 a.m. – 12:00 p.m. | Workshop: Religious Inclusivity in Higher Education  
Presented by Susan Shaw, Professor of Women, Gender, and Sexuality Studies, Oregon State University  
Panelists: Ranmalee Perera, Karen Markley, Albert Rodriguez  
Fullerton College, Room 224/226/228 |

## November 8, 2019

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<thead>
<tr>
<th>Time</th>
<th>Event</th>
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| 9:00 a.m. – 12:00 p.m. | Workshop: Creating Supportive Environments for Faculty of Color  
Through a Lens Darkly: Shifting Faculty of Color Support from Obscurity to Reality  
Presented by Annette Letcher and Ranmalee Perera  
Cypress College, College Complex, Room 414 |

## December 6, 2019

<table>
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<tr>
<th>Time</th>
<th>Event</th>
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| 8:00 a.m. – 5:00 p.m. | Field Trip: Museum of Man  
San Diego, CA |

## December 13, 2019

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<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>9:00 a.m. - 12:00 p.m.</td>
<td>Workshop: Understanding the Hiring/Interview Process for Faculty Positions</td>
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## December 2019 or January 2020

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<th>Event</th>
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<tr>
<td>Completion Ceremony</td>
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\*\* Required for F.I.T. Interns \*\*
F.I.T. Participants Responsibilities At-a-Glance

INTERNS:

- Attend a mandatory orientation at the beginning of the program/term.
- Attend and observe the mentor’s classroom for at least one hour per week during the Fall 2019 semester.
- Teach a minimum number of lessons/class sessions (under the supervision of the mentor, pursuant to the agreement between the mentor and intern).
- Attend mentor-intern meetings once a week, with a minimum of 2 hours per month.
- Attend intern cohort group session meetings.
- Keep record of activities, including a journal of reflection during the program to be submitted and reviewed by the committee.
- Attend four mandatory training seminars, 1-4 hours in length.
- Attend a completion ceremony/graduation at the end of the semester.

MENTORS:

- Attend mandatory orientation at the beginning of the program/term.
- Ensure interns complete classroom observations.
- Provide the intern with the opportunity to teach.
- Attend mentor-intern meetings once a week with a minimum of 2 hours per month.
- Guide the intern through the process of acquiring skills to teach effectively in a multicultural and ethnically diverse community college classroom.
- Attend one mandatory training session.
- Encourage the presence of the intern at departmental and division meetings.
- Conduct midterm review and assessment.
- Attend a completion/graduation ceremony at the end of the semester.
- Estimated commitment of 15-20 hours per semester, beyond time spent in classroom.
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<thead>
<tr>
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A Global Pop-Up Exhibit on the United States’ Humanitarian Crisis at the Southern Border  
• Presented by Dr. Jason De León, Professor of Anthropology and Chicana/o Studies, University of California, Los Angeles  
• Cypress College Art Gallery |                                  |
| October 11, 2019   | 9:00 a.m. – 12:00 p.m. | Workshop: Religious Inclusivity in the Higher Education  
• Presented by Susan Shaw, Professor of Women, Gender, and Sexuality Studies, Oregon State University  
Panelists:  
• Ranmalee Perera, Professor of Linguistics/ESL, Long Beach City College - Islamophobia  
• Karen Markley, Professor of Anthropology, Fullerton College - Neo Pagan & Druid Traditions  
• Albert Rodriguez, Professor of Philosophy, Whittier College - Buddhism  
• Fullerton College, Room 224/226/228 |                                  |
| November 8, 2019   | 9:00 a.m. – 12:00 p.m. | Workshop: Creating Supportive Environments for Faculty of Color  
Through a Lens Darkly: Shifting Faculty of Color Support from Obscurity to Reality  
• Presented by Annette Letcher, Associate Professor of English, Cypress College and Ranmalee Perera, Professor of Linguistics and ESL, Long Beach City College  
• Cypress College, CComplex Room 414 |                                  |
| December 6, 2019   | 7:30 a.m. – 4:30 p.m. | Field Trip: Museum of Man  
• Balboa Park, San Diego, CA |                                  |

R Required for F.I.T. Interns
II. Program Questionnaires & Feedback

- Mentor Questionnaires- Pre & Post Program
- Intern Questionnaires- Pre & Post Program
Dear Mentor,

Please take a few minutes to answer the following survey about you and your field PRIOR to the beginning of the Future Instructor Intern/Mentor Program. All this information will be used to tailor the program to more specific needs/interests and attempt to assess changes/transformation. All information you share is optional and will only be shared by members of the Diversity & Compliance office. Please return it to your assigned Faculty Fellow during orientation.

I. Please tell us about your interest in this program. What do you know about the program and why do you think it is important? How is this program relevant to your field & to you?

II. What are some areas our district needs to work on in regards to Diversity, Equity & Inclusion regarding 1) faculty, 2) students?

III. How well prepared are you to address issues of Diversity, Equity & Inclusion? Do you have any strategies you already use in your classes?

IV. What are some of the areas you would like to improve on or learn more about? How can this program help?
### V. What criteria makes a faculty member be considered under-represented? In what context?

<table>
<thead>
<tr>
<th>V.</th>
<th>Why do think our district has so few faculty of color? What strategies can be used to change this?</th>
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<tbody>
<tr>
<td>VII.</td>
<td>How important is it for us to also address issues of class, ability/disability, race &amp; ethnicity, gender, sexual orientation, religious respect, etc.? How can we do this?</td>
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<tr>
<td>VIII.</td>
<td>Any other suggestions or comments:</td>
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Dear Mentor,
Please take a few minutes to answer the following survey about the Future Instructor Intern/Mentor Program. All this information will be used to improve the program in the future and will be confidential. Please return it to your Faculty Fellow by 12/6/19.

<table>
<thead>
<tr>
<th>I. Comment on your intern’s fulfillment of the duties required by the program:</th>
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<tr>
<th>II. What are some strengths of the intern?</th>
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<tr>
<th>III. What are some of the areas your intern can work on?</th>
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<tr>
<th>IV. Would you recommend your intern for a full time position? If not, why?</th>
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<tr>
<th>V. What are some strengths of the Future Instructors Training Program?</th>
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### VI. What are some areas of improvement of the Future Instructors Training Program?

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### VII. Do you think the office of Diversity & Inclusion provided adequate support? What did you appreciate?

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### VIII. What advice would you give future mentors?

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### IX. Any other suggestions or comments:

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I. Please tell us about your interest in this program. What do you know about the program and why do you think it is important? How is this program relevant to your field & to you?

II. What are some areas our district needs to work on in regards to Diversity, Equity & Inclusion regarding 1) faculty, 2) students?

III. How well prepared are you to address issues of Diversity, Equity & Inclusion? What training has helped you to better understand these issues?

IV. What are some of the areas you would like to improve on or learn more about? How can this program help?
II. Program Questionnaires & Feedback

PRE-FIT PROGRAM ASSESSMENT

INTERN-2019

<table>
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<th>What criteria makes a faculty member be considered under-represented? In what context?</th>
</tr>
</thead>
<tbody>
<tr>
<td>VI.</td>
<td>What are some challenges Faculty of Color may face in our district? Why do think there are such few numbers of faculty of color in academia &amp; at NOCCCD?</td>
</tr>
<tr>
<td>VII.</td>
<td>How important is it for us to also address issues of class, ability/disability, race &amp; ethnicity, gender, sexual orientation, religious respect, etc.? How can we do this?</td>
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<td>VIII.</td>
<td>Any other suggestions or comments:</td>
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</table>
Dear Intern:
Please take a few minutes to answer the following survey about the Future Instructor Intern/Mentor Program. This information will be used to improve the program in the future and will be kept confidential. Please return it to your Faculty Fellow by 12/6/19.

I. Comment on your mentor’s fulfillment of the role and duties required by the program:

II. What are some strengths of your mentor?

III. What are some of the areas your mentor can work on?

IV. What are some strengths of the Future Instructors Training Program?

V. What are some recommendations for areas for improvement for the Future Instructors Training Program?
## POST-FIT PROGRAM ASSESSMENT

### INTERN-2019

<table>
<thead>
<tr>
<th>VI.</th>
<th>What can you suggest for future workshops and events?</th>
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</table>
| VII. | Did you think the office of Diversity & Inclusion provided adequate support?  
What did you appreciate? |
| VIII. | What advice would you give future interns based on your experience? |
| IX. | Any other suggestions or comments: |
III. Equity-Centered & Inclusive Teaching Strategies

- Creating Inclusive College Classrooms
- Classroom Tools - Multicultural Education Programs
- Contextual Problem Designing
- Critical Pedagogy and Assessment in Higher Education
- Engaging with Social Justice by DiAngelo
- Evidence Based Inclusive Interventions
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- Tools for Teaching Diversity
- 8 Actions to Reduce Racism in College Classrooms
Creating Inclusive College Classrooms

Shari Saunders and Diana Kardia (1997)
Center for Research on Learning and Teaching

Inclusive classrooms are classrooms in which instructors and students work together to create and sustain an environment in which everyone feels safe, supported, and encouraged to express her or his views and concerns. In these classrooms, the content is explicitly viewed from the multiple perspectives and varied experiences of a range of groups. Content is presented in a manner that reduces all students' experiences of marginalization and, wherever possible, helps students understand that individuals' experiences, values, and perspectives influence how they construct knowledge in any field or discipline. Instructors in inclusive classrooms use a variety of teaching methods in order to facilitate the academic achievement of all students. Inclusive classrooms are places in which thoughtfulness, mutual respect, and academic excellence are valued and promoted. When graduate student instructors (GSIs) are successful in creating inclusive classrooms, this makes great strides towards realizing the University of Michigan's commitment to teaching and to diversity and excellence in practice.

In an inclusive classroom, instructors attempt to be responsive to students on both an individual and a cultural level. Broadly speaking, the inclusiveness of a classroom will depend upon the kinds of interactions that occur between and among you and the students in the classroom. These interactions are influenced by:

- the course content;
- your prior assumptions and awareness of potential multicultural issues in classroom situations;
- your planning of class sessions, including the ways students are grouped for learning;
- your knowledge about the diverse backgrounds of your students; and
- your decisions, comments, and behaviors during the process of teaching.

Each of these five aspects of teaching are addressed in this section. This information will assist you to teach in more inclusive ways. Much of the information in this section was drawn from focus group interviews conducted by CRLT in 1995-96 with female and male students from a variety of racial, ethnic, and religious backgrounds and departments or units. In these interviews, students identified multicultural issues related to classroom climate, course content and materials, and teaching methods. They also made recommendations about how classrooms could be made more inclusive. The examples used to illustrate particular issues in the sections that follow were taken from comments made by students during the focus group interviews and from the experiences of CRLT staff.

Choosing Course Content

Some GSIs have a great deal of control over the content of a course, especially the content of their section, while others do not. It is helpful for students to know the extent to which you, as a GSI, have
control. If students criticize or make suggestions about course content, texts, material, etc., over which you do not have control, you should convey their comments to the faculty member in charge of the course and encourage them to do the same.

When you have some control over the content (including books, coursepacks, and other materials), the following two questions and their related suggestions should be considered:

Whose voices, perspectives, and scholarship are being represented?

- Include multiple perspectives on each topic of the course rather than focusing solely on a single perspective. For example, if the topic is "The Great Depression in the USA" the content should not focus solely on the experiences of European Americans. Americans of African and Asian descent, American Indians, Mexicans, etc. had experiences and views that should be acknowledged. It would also be important to include the experiences and views of people with different socio-economic statuses in this example.

- Include, as much as possible, materials written or created by people of different backgrounds and/or perspectives. If all the authors or creators of materials in a course are male (or female), white (or another group), liberal (or conservative), etc., instructors will be sending a message about the voices that are valued and will be devaluing the scholarship of others who have written or created materials on the topic. (This guideline should be altered appropriately in courses where the focus of the course is to better understand a particular perspective or world view. Even these courses, however, should be attentive to the range of possible voices on a given topic.) On a related note, it is important to include works authored by members of the group that the class is discussing. For example, if the course deals with topics related to Muslims or Islam and the syllabus does not include materials written by Muslim authors, the message sent to students may be that you devalue the contributions of and scholarship produced by Muslims.

How are the perspectives and experiences of various groups being represented?

- Include materials (readings, videotapes, etc.) that address underrepresented groups' experiences in ways that do not trivialize or marginalize these groups' experiences. Books that include a section on some aspect of diversity at the end of the text or books that highlight women, people of color, people with disabilities, gay men, lesbians, etc., in boxes and not in the body of the text can be seen as examples of the marginalization of these topics, groups, and group members' contributions. When it is important to use such books for other reasons, instructors have a responsibility to make students aware of the texts' limitations at the beginning of the course and to facilitate students' ability to read critically with these issues in mind.

- Be aware of and responsive to the portrayal of certain groups in course content. For example, if an Asian country's policies are being used to contrast American policies, the policy of the Asian country should not always be used as a negative example (e.g., social policies in China) or always used as a positive example (e.g., business in Japan). You need to address the role of culture in foreign policies and not present policies as either wholly good or bad. Such treatment ignores the complexity of other cultures' policies or practices.

- Avoid dichotomizing issues of race into black and white. It is essential to recognize and acknowledge that there are other groups for whom racial issues are relevant (Arab Americans, Asians Americans, Latinos/as, Native Americans, etc.). Whenever possible, perspectives on racial issues from other groups should be included in course materials. If you have difficulty finding such materials, you should bring other perspectives into course lectures and discussions.
Increasing Awareness of Problematic Assumptions

An important early step in developing competencies to address multicultural issues in the classroom is to raise your awareness of issues that are multicultural and how they might manifest themselves in classrooms. In this process, it is useful to give consideration to assumptions that you may hold about the learning behaviors and capacities of your students. You may also hold assumptions that are tied to students' social identity characteristics (gender, race, ethnicity, disability, language, sexual orientation, etc.). These assumptions may manifest themselves in your interactions with students. You may need assistance in order to become aware of your assumptions. You should consider getting to know your students to be an ongoing process related to developing a positive classroom climate that promotes excellence.

Below are examples of assumptions, how they might be dealt with, and how you might learn more about your students through the process of addressing these types of assumptions.

Assumptions About Students' Learning Behaviors and Capacities

**Assumption:** Students will seek help when they are struggling with a class.

For a number of reasons, students do not always feel comfortable asking for help. In order to address this issue, you can request meetings with students as problems arise or make office hour meetings part of the course requirement (e.g., each student will meet with you after receiving his or her grade on the first assignment). The latter is an ideal method because it allows you the opportunity to meet one-on-one with every student. It also removes the stigma attached to going to office hours.

**Assumption:** Students from certain groups are not intellectual, are irresponsible, are satisfied with below average grades, lack ability, have high ability in particular subject areas, etc.

It is essential that instructors have high expectations for all students. For example, if a student earns a grade of C or lower, you should inform the student of the need for a meeting to discuss his or her performance. If students are absent, you should show concern about their absence when they return by asking if things are all right with them. If there are repeated absences, you should request a meeting with the student to discuss the situation. It is important for you to make initial contact with students; however, at some point, students need to take the initiative.

**Assumption:** Students from certain backgrounds (e.g., students from urban or rural areas, students who speak with an accent, students from specific racial or ethnic groups) are poor writers.

While the degree of writing preparation varies across the public school system in the US, students' regional background or group memberships do not serve as accurate predictors of the degree of preparation they received. Furthermore, you need to be sensitive to cultural differences in writing styles, recognizing that many standards apply to the evaluation of good writing. If a specific type of writing is expected for a given class, it may be useful to assign a short, ungraded assignment early in the term to identify students who may need additional assistance in meeting that particular writing standard.

**Assumption:** Poor writing suggests limited intellectual ability.

It is misleading to equate students' writing skills with their intellectual ability. Students have varying degrees of experience with "academic" writing. You have a responsibility to be explicit about what is expected and share with students examples of good writing done by other students. You should also alert students early on of their need to improve their writing and should suggest resources to them (e.g., Sweetland Writing Center consultations).
**Assumption:** Older students or students with physical disabilities are slower learners and require more attention from the instructor.

While there are many cultural assumptions about links between age or physical ability and one’s intellectual capacity, these characteristics are not typically linked. Most classes do include some students who require extra attention from the instructor but such students cannot be readily identifiable by physical characteristics.

**Assumption:** Students whose cultural affiliation is tied to non-English speaking groups are not native English speakers or are bilingual.

If you feel that it is important to know whether students speak or understand other languages, you should ask this question of all students, not just those to whom you think the question applies. If there are concerns about students' academic writing skills, it would be best to meet with the students during office hours to discuss their work. One of the questions you could ask as part of your data gathering protocol is, "What were the languages spoken in the environment in which you were raised?" Following this question with appropriate probes would give you an opportunity to find out whether students are native speakers of English and, if not, how recently they became fluent. It is important to identify the source of students' difficulty with writing (or speaking), because identification of the factors that contribute to the problem will influence the actions taken to address the problem.

**Assumption:** Students who are affiliated with a particular group (gender, race, ethnic, etc.) are experts on issues related to that group and feel comfortable being seen as information sources to the rest of the class and the instructor who are not members of that group. AND/OR European American students do not have opinions about issues of race or ethnicity and members of other groups do have opinions about these issues.

One way to effectively deal with this set of assumptions is to pose questions about particular groups to the entire class rather than presuming that members of a certain group are the only ones who can reply. For example, questions could be phrased so that students would be able to share experiences of their friends or comments that they’ve heard as well as their own experiences. It would be best to let the class know that if any individual has experiences or information that she or he thinks would be beneficial to the class, she or he should inform you about such experiences or information. If you would like to hear from a particular student on a specific issue that relates to group membership, you should speak with the student privately instead of calling on the student when the issue arises in class. In this way, you can find out the students' ability to comment on the issue and willingness to do so publicly. This would avoid putting the student in an awkward position, particularly if the student lacks knowledge about questions related to his or her group.

**Assumption:** All students from a particular group share the same view on an issue, and their perspective will necessarily be different from the majority of the class who are not from that group.

You can regularly encourage all students to express different perspectives on issues, and you should not express surprise when people from the same "group" share opposing views or have a view consistent with the majority of the class. It is important to understand, however, that some students who are part of a "group" will feel hesitant to share views publicly that differ from the "anticipated group position" for fear of being admonished by members of their "group" or isolated from the "group" (e.g., an African American student expressing an anti-affirmative action view).

**Assumption:** In their reading, students will relate only to characters who resemble them.

This would most frequently occur in courses in which students read literature. Instructors should be careful not to treat with suspicion comments that suggest affiliation with a character that does not resemble the student in terms of race, ethnicity, gender, etc. For example, if a Caucasian student...
claims to feel her or his experiences resonate with an African American character, you should not dismiss her or his response, but probe for further explication about why she or he feels the connection.

**Assumption:** Students from certain groups are more likely to: be argumentative or conflictual during class discussions OR not participate in class discussions OR bring a more radical agenda to class discussions.

Participation levels vary across all students, with some students more comfortable in listening roles and others more comfortable taking the lead in class discussions. While these discussion styles may be influenced by students' past experiences, families of origin, and cultural reference points, a priori assumptions about student participation may hinder class discussion. It is important that you encourage participation among all students while also respecting the differences among students that will emerge. More equitable discussions can often be created by prefacing the discussion with a writing exercise that provides all students with the opportunity to clarify their thoughts on the discussion topic. It is also useful to remember that students' participation levels evolve over the course of a term as they become more comfortable with the course, their classmates, and the instructor.

**Planning Considerations**

There are a number of multicultural issues that should be taken into account during the planning process for any class. You need to become comfortable with your lack of knowledge about certain groups and seek ways to inform yourself (e.g., through experiences, readings, and/or conversations with faculty, peers, and students who are knowledgeable about the particular groups). Below you will find examples of the sorts of issues that might be considered in order to increase your awareness of multicultural issues during the planning process.

**Accommodations**

Students may have religious holidays and practices that require accommodations at certain times during the academic calendar year. Students with disabilities may also require special accommodations. To be sensitive to the religious needs of students, it is important to read the "Religious Holidays and the Academic Calendar" handout provided each year by the Provost's Office so that you are aware of the holidays that occur during the semester you are teaching. Contact Services for Students with Disabilities (763-3000) for information on ways that you can accommodate the needs of those students. At the beginning of the semester, ask your students to let you know if their attendance, their participation in class, or their ability to complete an assignment on time will be affected by their observance of religious holidays or practices, or because of a disability. Give advance consideration to requests for reasonable and fair accommodations. Some instructors ask for this information on data sheets that students complete on the first day of class.

**Attendance**

Students who are different in a highly visible way (women who wear Islamic clothing, African Americans or Asian Americans in a predominantly white class, students who use wheelchairs, etc.) can be penalized because of their visibility. In particular, absences of such students may be noticed more easily. For this reason, it is important to record all students' attendance at every class session (whether or not you use the information) rather than collecting a mental record of absences of highly visible students that may inadvertently and unfairly affect how you evaluate them.

**Grading**
When you use different criteria to evaluate the performance of students from certain groups, this can create tensions in the class because students tend to share their grades. Furthermore, if these criteria are applied based on assumptions you have made rather than on accurate information regarding the students, some students may be unfairly penalized. For example, having higher expectations for Asian American students in Asian language classes than for other students may unfairly penalize Asian American students who have never had any experience with the Asian language they are learning. With this in mind, you should ask all students about their prior experiences with the course content and should inform students of the criteria by which their performance will be assessed along with the rationale for differential evaluations if such a practice will be used.

Cultural Reference Points

Instructors who use examples drawn only from their own experience may fail to reach all students in the class. Given that examples are designed to clarify key points, you should collect examples from a variety of cultural reference points. For example, in 1995/1996 "Friends" was a sitcom that received high ratings. However, this show was less popular among many African American people than shows like "Living Single" and "Martin." Similarly, when using sports examples it is important for instructors to include sports in which women participate (e.g., track & field, figure skating, gymnastics, tennis, softball) as well as those in which male participants predominate (e.g., hockey, football, baseball). This concern can also be offset by asking about students' familiarity with an example before discussing it or asking students to produce examples of their own. You can also explain examples fully in order to reach a diverse classroom.

Instructional Strategies

Students bring an array of learning styles to a class. If you rely on a small repertoire of instructional strategies, you may provide effective instruction for only a small subset of your class. You should become aware of your preferred instructional strategies. For example, are sessions with small groups of students doing problem sets always conducted by asking questions? Are whole-group discussions preferred and the only method used? Once you have a sense of your strategy preferences, you should consider alternative techniques that will help your students learn more effectively. If you typically give mini-lectures to students, you might consider using visual materials (e.g., charts, diagrams, video), demonstrations, hands-on activities, cooperative group work, etc.

Controversial Topics

Class sessions that address controversial topics may result in any of the following unintended outcomes: (a) altercations between individual students or groups of students, (b) silence from students who feel intimidated or fear conflict, (c) the assertion and perpetuation of false stereotypes or problematic assumptions, or (d) the expression of offensive speech. There are no easy answers for dealing with these situations when they occur. It is best to work toward the prevention of these occurrences by investing time in the planning process. When working with a particular controversial topic, anticipate possible responses and how you might deal with differing yet passionate views on that topic. You should plan strategies that provide structure for these discussions and that foster students' ability to express their own ideas well while also increasing their ability to listen to and learn from others. In the interest of free speech, students should be encouraged to honestly share their views during discussions. Be prepared, however, to correct stereotypes and challenge students' assumptions when comments are shared. It can be a difficult task to reconcile the tension between challenging offensive speech and not suppressing free speech. You should also consider your own response to emotion in the classroom and use this awareness to inform the planning process.

Establishing agreed upon guidelines early in the class can be an important aspect of productive class discussions. If guidelines are established early, students will need to be reminded periodically.
of the rules throughout the semester, especially if their behavior suggests that they are ignoring them. If such rules were not established at the beginning of the semester, it is necessary to establish them when a problem becomes apparent. (Sample guidelines can be found here [1].)

It is also helpful, at the beginning of the semester, to focus on group processes. Activities and assignments during the first weeks of the course should include opportunities for instructors to get to know each student and for students to get to know one another. Establishing rules for classroom dialogues, building a trusting and open environment, modeling appropriate behavior during dialogues, and giving students the opportunity to practice these behaviors with topics that are not explosive or fearful are important for positive dialogue experiences. If you and your students engage in these behaviors early on, when problems arise, you will be able to address the problem by discussing the rules and appropriate behaviors.

Grouping Students for Learning

There are a variety of reasons for using cooperative groups (to facilitate student learning, to improve interpersonal relationships among students, to foster responsibility for students' own learning and the learning of others, etc.). You might create in-class and/or out-of-class groups (lab groups, homework groups, problem-solving groups, study groups, etc.). Because group composition can have a significant impact on group functioning, you should use a variety of methods to create groups. Such methods include: assigning students to groups (e.g., make heterogeneous groups across certain characteristics such as gender, race, and/or level of achievement in a particular discipline, or by where students live), randomly assigning students (e.g., ask students to draw a piece of paper with a group number from a bag), or allowing students to form their own groups. This latter method should be used sparingly, if possible, as it can consciously or unconsciously be used to create or reinforce social group differences within the class.

In addition to group formation issues, pay attention to the length of time students remain in the same group, particularly if the group is not working together well. It is essential that you address process issues when students work in groups, and some class time should be allocated in the planning of the course to discuss group process issues throughout the semester. It is often helpful for each person in a group to have a specific role (e.g., observer, encourager, summarizer) and everyone should have an opportunity to participate in every role during the semester. You should help students determine a way to provide feedback to one another about group process and dynamics and a way to keep you aware of within-group functioning. Feedback is particularly important for identifying social identity characteristics that might be a source of problems in groups and for figuring out how to address problems satisfactorily. The following guidelines may be useful for addressing group process.

- When groups are used, make sure that the same individuals do not always put themselves in the position of leadership. Assigning students to roles (e.g., recorder/notetaker, reporter, moderator) or asking students to rotate roles should reduce the occurrence of this problem.
- Be ready to challenge assumptions that groups will either be aided or hindered by having certain kinds of students in their group (e.g., men in math or science classes feeling they have to help the women along; white students working on a project on “rap music” who are eager to have an African American student as part of their group). One way to reduce the likelihood of such assumptions manifesting themselves in group work would be to spend some time informing the class that each individual brings a different combination of strengths and weaknesses into the group work context and that students should not make assumptions about what these might be prior to any interaction with an individual. Group exercises that identify the specific resources that each group member brings can be useful in the early stages of group formation. It is also important to inform students of your availability to discuss group process problems that the groups themselves have been unable to successfully address.
You may need to make an extra effort to reduce the chances that a student who is different from the majority of the class will feel isolated (an African American student in a predominantly white class; a male in a predominantly female class; an openly gay, lesbian, or bisexual student in a class composed predominantly of heterosexuals, etc.). For example, if students are shunning a classmate during small group activities because their classmate is gay and they are homophobic, you (irrespective of your personal perspective on homosexuality) have a responsibility to intervene on behalf of the excluded student. Even when guidelines have been established for participation and responsibilities within groups, problems may arise. It is essential to act quickly when they do. You could begin by reviewing the guidelines for group work. An initial change (if students are forming their own groups) would be to assign individuals to groups and make sure each individual within the group has a role. Another option would be to put students in pairs. It is more difficult to exclude an individual when there are only two participants. If all else fails, it would be important to set up a meeting with the excluded student and together you could generate a variety of actions that could be taken to improve the classroom climate. This would be a show of support to the student. While it is important to solicit student input, you cannot expect the student to have the time or experience to solve the problem. If efforts are made to improve the situation and little change occurs, you might speak with a consultant from CRLT.

Getting to Know the Students

Part of good teaching involves spending some time focusing on building relationships with your students. It is important to some students that you demonstrate caring and genuine concern about them. You may have more positive experiences with students if you invest some time and energy into becoming informed and more aware of issues affecting students of various backgrounds.

One way to get to know your students better early in the semester is to have students write a brief autobiography; it can be as short as two pages. The autobiography can be framed in ways that are relevant to the course content. For example, if you are responsible for math or science courses, you can ask students to share their early experiences (formal and informal) with math and science. They could also be asked to reflect on what their previous experiences with math or science suggest about how they learn best. From this brief paper, you would receive some valuable information about students’ attitudes about the content and some of their instructional needs. This kind of assignment could help you to explore, early on, some of the assumptions you might hold about your students and their experiences. It may also help students feel that real interest is being taken in them.

Throughout the term, you can make use of office hours, written assignments, and class discussion to further develop your knowledge about and connections to students. Specific suggestions have already been made in previous sections of this chapter.

Decisions, Comments, & Behaviors During the Teaching Process

If you are responsible for teaching sections of a course, it is essential to understand that even when you have limited input into course content, you have much control over how that content gets taught. Teaching is a complex activity in which there are multiple levels of interaction among students and between GSIs and students. Students all bring very different backgrounds, knowledge, and learning styles to a particular course. There are multiple interpretations of content constructed by individual students during the learning process. Also, some students construct different images of their instructors which are counter to how you might see yourself. Because of the complexity and unpredictability of teaching, you should carefully plan your course sessions and always be prepared for the unexpected to occur. The following points address many of the issues that may arise during the teaching process.
Working with Course Content

- Examine course content for inaccurate information and the absence of relevant perspectives. Prepare for each class session by reading upcoming assignments in order to identify omissions, misleading interpretations, and intentional or inadvertent expressions of personal opinion by the author. You may then alert students to problems with the text and encourage students to read critically themselves. For example, a section on employment discrimination in an Economics text states that blatant racial or gender discrimination is vanishing today. Since this is a statement about which there is current disagreement, students might be prompted to consider and discuss their own degree of agreement with this statement.

- Be careful about the comments made during class lectures, discussions, recitation sessions, etc. Be aware of the fact that comments that are not fully explained may inadvertently invoke stereotypes or promote inaccurate conclusions. Similarly, skewed examples of religious, historical, or other events have the potential to lead students to believe that inaccuracies are truths.

Student Critiques of Course Content

- Create a classroom climate that encourages and expects questions about and critiques of course content. Such a climate will help to create a norm of critical thinking that will facilitate the learning process for all students. As students share their critiques with the class, other students will benefit by being exposed to different interpretations, perspectives, and concerns regarding course material. This climate can also provide an opportunity for students to add to the course content by correcting inaccuracies or misrepresentations related to the history or experience of their own groups.

- Make decisions about when to devote unanticipated time to class discussions to deal with issues raised by students that pertain to content or process. These issues, which may deal with the history or culture of a group with which you are unfamiliar, are an equally important part of the course content. It is best to be honest about your lack of knowledge, acknowledge the students' point, and make efforts to secure information about the students' point to share with the class in a future session. It is also important to emphasize that everyone can be a teacher and that instructors and students can learn from one another. You can also ask students to send you e-mail messages, chat with you during office hours, or drop notes in your mailbox as concerns about course content arise. You should make every effort to address these issues or explain to students why they will not be addressed.

- Be open to students' reactions to course material, even when you feel uncomfortable with the manner in which they are expressed. Be prepared for students to publicly challenge inaccurate information about particular groups that appears in class readings, films, etc. Students may react strongly upon hearing what they perceive to be inaccurate and negative information about their group. You may find yourself teaching courses that have the reputation (from the students' perspective) of being full of inaccurate or misleading content. Students can often feel unduly burdened when they are in a position as teacher rather than learner. Students may resent having to "pick up the slack" in classes where instructors and their peers lack knowledge about the group with which the particular students are affiliated. When students are of the opinion that the information being given in the course is biased against their group, they may feel that they are also missing valuable learning opportunities. Creating a positive learning experience for these students can be challenging. In this situation, it is most important to be open to the perspectives these students share. Giving serious consideration to students' views that are in the "minority" will encourage students to respond honestly about issues while also encouraging students to think more broadly about issues. This does not, however, mean that you have to agree with the students' views or feel that the students' views are above critique.

- Give serious consideration to students' requests for alternative materials when materials currently used inaccurately represent aspects of students' social identity groups or cultures.
Changes should be made when justified. If you receive criticisms about materials, you should make clear to students that the criticism can be accompanied by specific recommendations of alternative materials.

Responding to Student Identities

- Invite all students to contribute to class discussion, even if you assume that the discussion is more relevant to some students than others. Students (irrespective of background) do not like being forced to serve as the spokesperson for their group. Students also do not appreciate being expected to know everything about issues relating to their group or the assumption that all students from their group feel the same way about an issue.
- Be sensitive to the experiences of visibly underrepresented students in your class. Students with identities that are underrepresented and visible or known may face certain challenges that unfairly compromise their learning environment. For example, students may not be allowed to do assignments on certain topics because of the instructor's assumption about the students' biases. In one course, women wearing Islamic head scarves were readily identified as Muslim and not allowed to write a paper on Islam; it was more difficult to readily identify students as Christian from their appearance, so they were not prevented from writing papers on Christianity. Students from underrepresented groups may also feel a self-imposed pressure always to portray themselves in a good light so they do not reinforce stereotypes about their group. Whereas "majority students" can slack off from time to time when working within groups, occasionally show up late to class, or be absent without peers attributing their behavior to membership in a particular group, students from underrepresented groups often sense that their behavior is interpreted as a reflection on their group. Although there may be little you can do to relieve this self-imposed pressure on the part of some students, you can be thoughtful about your interactions with these students and make an effort not to publicly discuss students’ performance or behavior.

Inequities in the Classroom

- Be aware of gender dynamics in classroom discussions. Even when women are in the majority, men may sometimes consciously or unconsciously dominate class discussions or interrupt women. Monitor the occurrence of this behavior and encourage women to speak up at the same time they discourage men from dominating the discussion.
- Be careful not to respond to comments in ways that students might interpret as dismissals. You should give sufficient attention to (a) students' comments that differ from the majority of students' views or your own views, (b) students' views that are based on experiential knowledge, and (c) women's views in predominately male classes or traditionally male fields. Be aware of differential feedback given to students who differ on some aspect of their social identity (gender, ethnicity, disability, sexual orientation, etc.). For example, you should attend to whether you speak down to women or "brush off" their questions, yet give men responses that are informative and detailed.

Conflict in the Classroom

- Respond to classroom conflict in a manner that helps students become aware of the "learning moment" this conflict provides. Heated discussions need to be facilitated in a manner that does not result in hostility among class members and a sustained sense of bad feeling in the room. You can avoid these outcomes by encouraging students to tie their feelings and conflicts to the course material and by looking for underlying meanings and principles that might get buried in the process of class conflict. Students appreciate tensions between groups in the class being recognized and effectively addressed.
- Recognize student fears and concerns about conflict. Students enter a class with different levels of experience and comfort with conflict. It is important to normalize the experience of conflict in the classroom, particularly in classes that focus on controversial topics. This can be
accomplished through explicit discussion of student experiences with conflict and the use of structured discussion exercises.

- Maintain the role of facilitator. One of the challenges of teaching is maintaining the role of instructor under a variety of conditions. For example, you can get caught up in expressing your own perspective in heated discussions or can become overly silent in discussions that go beyond your own knowledge base or experience. While these responses are understandable, such role abdication can create chaos in the classroom or force students to fill in the abdicated facilitator role. In order to avoid this outcome, you should examine your typical responses to conflict. It can also be useful to find ways that you may admit your limits with respect to content areas while maintaining responsibility for the group process.

Promoting Excellence & Innovation in Teaching & Learning at U-M

CRLT is dedicated to the support and advancement of evidence-based learning and teaching practices and the professional development of all members of the campus teaching community. CRLT partners with faculty, graduate students, postdocs, and administrators to develop and sustain a University culture that values and rewards teaching, respects and supports individual differences among learners, and creates learning environments in which diverse students and instructors can excel.

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Source URL: http://www.crlt.umich.edu/gsis/p3_1

Links:
[1] http://www.crlt.umich.edu/P4_1
Classroom Tools

As a faculty or graduate student instructor at UC Berkeley, there are many opportunities to capitalize on the presence of the representational diversity both in our community and particularly with our teaching. The following resources from both UC Berkeley and from other institutions suggest a number of actions to take to make our classrooms as healthy and as safe an environment possible for all student learners. These resources also include a number of suggestions for engaging with particular diversity topics.

The Diverse Classroom Environment

- [Creating Inclusive College Classrooms](#)
- [Teaching in Racially Diverse College Classrooms](#)
- [Higher Order Thinking](#)
- [Undergraduate Women in Science and Engineering: Providing Academic Support](#)
- [Creating Conditions for (International) Student Success](#)
- [Universal Design for Learning](#)
- [Teaching Students with Disabilities](#)
- [Inclusive Classrooms for Trans* and Gender Expansive Students](#)

Instructor Self-Awareness

- [Instructor Identity: The Impact of Gender and Race on Faculty Experiences with Teaching](#)
- [Diversity Issues for the Instructor: Identifying Your Own Attitudes](#)

Dynamics in a Diverse Classroom

- [Teaching Sensitive Topics](#)
- [Hot Moments in the Classroom](#)
- [Tips for Dealing with Hot Moments](#)
- [Managing Student Resistance](#)
- [Managing Classroom Conflict](#)
- [Teaching Controversial Issues](#)
- [Teaching Materials: Diversity](#)
- [Recognizing Microaggressions and the Messages They Send](#)
- [Interrupting Microaggressions](#)
Engaging with Diversity Topics

- [Class in the Classroom](#)
- [Guidelines for Discussion of Affirmative Action](#)
- [Guidelines for Discussion of CyberBullying and Expressions of Anti-Gay Sentiment](#)
- [Guidelines for Discussion of Racial Conflict and the Language of Hate, Bias and Discrimination](#)

"Flipping" the Classroom

- [Making Classroom Groups Inclusive](#)
- [February 19th article "How 'Flipping' the Classroom Can Improve the Traditional Lecture" in the Chronicle of Higher Education](#)
- [AERA-L email list / resource list re: Flipping the Classroom vs Traditional Lecture](#)

Campus Resources

- [Division of Equity and Inclusion Faculty Resources](#)
- [Center for Teaching and Learning](#)
- [American Cultures Center](#)
- [Academic Innovation Studio](#)
- [Disabled Students Program](#)
- [Office of Disability Compliance](#)
- [Office for the Prevention of Harassment & Discrimination](#)
- [Faculty Equity and Welfare](#)
- [Faculty Ombuds Office](#)

Other Websites of Interest

- [MEP e-tools page](#)
- [The Zinn Education Project](#)
  The Zinn Education Project website offers free, downloadable lessons and articles organized by theme, time period, and reading level. The Zinn Education Project is coordinated by two non-profit organizations, Rethinking Schools and Teaching for Change. Its goal is to introduce students to a more accurate, complex, and engaging understanding of United States history than is found in traditional textbooks and curricula.

- [SoJust: Primary Source History of Social Justice](#)
  SoJust is a collection of historic speeches, songs, poetry, and essays on human rights and social justice. It is a project of EdChange, a source of professional development, research, and resources for diversity, multiculturalism, and cultural competence.

- [Without Prejudice: Resources for Change](#)
  Resources for Change is a clearing-house for anti-discrimination education resources and is designed for educators and individuals committed to making positive change. It is a project of the Access to Media Education Society.
• **Media Education Foundation**
The Media Education Foundation produces and distributes documentary films and other educational resources to inspire critical reflection on the social, political, and cultural impact of American mass media. In addition to their films, MEF offers study guides, transcripts, and other materials that support the use of their films in the classroom and other venues.

• **Critical Multicultural Pavilion**
Multicultural, Anti-bias, & Diversity Activities and Exercises

• **Diversity Activities for Youth and Adults (from Penn State University)**

• **LGBT Classroom Resources for Faculty (from University of Minnesota)**

• **Team Based Learning**
Team-Based Learning (TBL) is an increasingly-popular form of small group learning. The four components of TBL are permanent teams, readiness assurance, application activities, and peer evaluation. TBL is possible even in large theater-style classrooms with fixed seats. TBL teachers report high levels of student attendance, preparation, participation and critical thinking. TBL students report being more motivated and enjoying class more, even when the subject is not in their major.

• **Diversifying Economic Quality Wiki**
This wiki promotes best teaching practices in economics, particularly practices that encourage women, students of color, and members of other underrepresented groups to continue their study of economics. Here, economists can disseminate and discover prescriptions for improving our teaching and the inclusiveness of our discipline. The teaching strategies offered here are presented alongside evidence of their effectiveness and practical suggestions for implementation. The wiki also provides data describing patterns of participation in our profession and opportunities for thoughtful reflection on why inclusion and diversity are important to the future of economic theory and policymaking.

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**TOOLS FOR EDUCATION**

- **E-Tools**

- **Classroom Tools**

  - **Letter to All Faculty**
Contextual Problem Defining: Learning to Think and Act from the Standpoint of Equity

Edlyn V. Peña, California Lutheran University
Estela Bensimon
Julia Colyar

Available at: https://works.bepress.com/edlyn_pena/7/
ONE OF THE MOST CRITICAL CHALLENGES facing institutions of higher education in the twenty-first century is the need to be more accountable for producing equitable educational outcomes for students of color. Although access to higher education has increased significantly over the past two decades, it has not translated into equitable educational outcomes. Not only do African Americans, Hispanics, and Native Americans have lower graduation rates than whites and Asian Americans, they also experience inequalities in just about every indicator of academic success—from earned grade point average to placement on the dean’s list to graduation rates in competitive majors. The incidence of unequal educational outcomes for minority students is not always visible, however; the disaggregation of data on educational outcomes is not a routine practice at the great majority of colleges and universities.

Since 2001, researchers at the Center for Urban Education have been working with colleges and universities in California, and more recently in Colorado, Washington, and Wisconsin, in the development and pilot-testing of Equity for All, an institutional change intervention designed to close the equity gap in higher education. Among the aims of Equity for All are (1) to increase campus members’ awareness of differences in educational outcomes across racial and ethnic groups, and (2) to encourage “equity-mindedness” in the ways campus members make sense of unequal educational outcomes and the role they play in eliminating them.

As we use it, the concept of equity-mindedness is distinct from prevailing ways of conceptualizing issues related to the participation of minority students in higher education, specifically deficit thinking and diversity thinking. From a deficit standpoint, unequal outcomes are attributed to the personal characteristics of the students who experience them. From a diversity standpoint, the dominant concerns are inclusiveness, intercultural communication, and cross-race relationships.

By contrast, the equity standpoint regards the educational status of historically underrepresented students in all types of institutions, not just those that are predominantly white and elite, as representing the greatest challenge facing higher education practitioners. The critical distinction between equity and deficit thinking is in how the problem of inequality in educational outcomes is framed. In deficit thinking, the unit of analysis and intervention is focused on the students, who are viewed as having a learning deficiency that can be addressed with new teaching techniques, supplementary programs, and add-on academic support systems to compensate for the deficiency. In equity thinking, the points of focus are the practitioner—administrators and faculty alike—and the institution. Thus, from an equity standpoint, practitioners themselves are viewed as the solution to students’ learning problems.
from the Standpoint of Equity
Individual transformation through inquiry

Through the execution of their everyday roles as teachers, advisers, counselors, and managers, campus members have the potential to impact, positively or negatively, the educational outcomes of minority group students. The impact of an individual is mediated by his or her awareness of racial patterns in educational outcomes and by the ways he or she makes sense of these patterns. The realization of this potential depends, first, on the extent of individuals’ awareness of race-based inequalities within their own context, and second, on their having the knowledge and experience to make sense of them from the standpoint of equity, rather than deficit.

Sociocultural theories suggest that individuals learn and change as a consequence of collaborative engagement in productive activity. Organizational theories suggest that there are different types of learning and that not all learning results in transformative change. In fact, they suggest that most learning within organizations consists of single-loop learning, whereas change—whether at the individual or the institutional level—requires double-loop learning (Argyris and Schön 1996). The difference between single- and double-loop learning is that the former encourages individuals to view a problem functionally and search for structural or programmatic solutions. In contrast, double-loop learning entails the ability to reflect on a problem from within, in relation to one’s own values, beliefs, and practices. Simply put, the difference is that the single-loop learner locates the problem externally and seeks to change others. Conversely, the double-loop learner is more apt to start from the self and engage in reflection that brings about self-change in values, beliefs, and practices.

Learning and self-change are enabled through the engagement of practitioners as researchers in collaborative activity to define and contextualize the particularities of a problem as it exists within their own milieu. Equity for All consists of phases where the learning activities are progressively more complex and intense. During the first phase, “data-based awareness,” practitioners construct an “equity scorecard” (see Bensimon 2004). In the second phase, “contextualized problem defining,” practitioners interview African American and Latino students as a strategy to learn about and reflect on how these students experience academic and social life on campus.

Racial and ethnic inequalities in educational outcomes are present, although not always visible or acknowledged, in research universities, selective liberal arts colleges, Hispanic-serving institutions, urban community colleges, and predominantly minority institutions; yet the details of these inequalities are distinctive. Variations across institutions necessitate that practitioners develop local knowledge. We developed contextualized problem defining as an alternative to the compensatory programmatic interventions commonly put in place once campus members become aware of inequalities in educational outcomes.

Defining the problem

Contextualized problem defining entails teams of faculty members and administrators working collaboratively as researchers on the problem of unequal outcomes. The composition of the teams depends on the kind of inquiry undertaken. The members of the teams, with our assistance as facilitators, design and conduct the inquiry project, thus creating locally meaningful knowledge. By becoming involved as researchers in a collaborative inquiry, the participants develop deeper knowledge about the problem; they may also come to problematize their assumptions about the nature of the problem as well as their attitudes, beliefs, and practices vis-à-vis minority student groups.

Thus, contextualized problem defining represents both a method of gathering and analyzing data as well as an intervention aimed at developing equity thinking among faculty members and other critical institutional actors. Contextualized problem defining consists of three elements: situated inquiry, practitioner-as-researcher, and community of practice.

Situated Inquiry. A faculty member can become an expert about an individual student through purposeful inquiry into the student’s educational history and by reflecting on the correspondence between the student’s situation and the assumptions underlying the faculty member’s practices. Rather than accepting inequities in educational outcomes as inevitable, the professional begins to consider how to adapt his or her methods of teaching or advising to align them with the students’ ways of learning. Becoming an expert on the educational
history of one or more students can empower a practitioner to become a change agent.

Practitioner-as-researcher. The purpose of inquiry is to bring about change at individual, organizational, and societal levels. Guided by outside facilitators, teams of faculty members collect data and create knowledge about local problems. Above all, it is important for the insiders to assume ownership of their findings. The outcome is knowledge that heightens the members’ awareness of what is occurring within their own institutions and increases their motivation to effect change. Thus, the knowledge produced in this model is practical and effective in directing changes. Participating in an inquiry group can increase members’ awareness of a problem, make them more conscious of their capacities for action, and empower them to use their newly acquired expertise to influence others (Bensimon, Polkinghorne, Bauman, and Vallejo 2004).

Community of practice. The kind of learning we wish to promote—e.g., learning that inequities exist, learning how students experience their own learning within the academic and social context of a particular campus, learning how to experiment with new ways of teaching or advising—is more likely to happen in conversation with others. However, participation in a community of practice is not simply a matter of attending meetings or events. A fundamental condition for situated learning is social interaction through collaboration. The group of faculty, as practitioner-researchers, forms a community of practice (Wenger 1998)—practitioners who organize around some form of knowledge and develop shared commitment, responsibility, and identity with regard to this knowledge. Learning happens through shared social interactions and dialogic conversations within the community of practice.

An example

The following example is based on our experience with a four-year college that collaborated with us in developing the methods and activities that comprise the contextualized problem-defining approach. The inquiry team was formed in response to a review of numerical data that revealed noticeable differences in the educational outcomes of African Americans and Latinos. As a result of the team’s data-based awareness, team members realized that they needed to develop a deeper understanding of the factors contributing to these outcomes. The team agreed that interviews would be the most appropriate method for learning how students view their experiences on campus, including their beliefs and attitudes about the institution and about themselves as learners. While this campus chose student interviews as the method of contextualized problem defining, other inquiry approaches are possible.

The team of faculty interviewers agreed that each member would interview two to three African American or Latino students three times over their freshman and sophomore years. Interviewing the students more than once allowed faculty to gain trust and to follow the students across their first two years of college.
In order to prepare for the interviews, team members participated in a one-day training provided by Equity for All researchers. Many of the team members were not formally trained in interview techniques; the training session provided opportunities to discuss the process and mechanics. The interview team worked together to develop the interview protocol, focusing the questions on defining more specifically the inequalities in educational outcomes that were reported in the equity scorecard the campus team created.

The team met before and after each round of interviews. These research meetings provided a space where faculty members could discuss the themes and interesting findings that emerged from their interviews. The discussions were important in developing the protocol for subsequent interviews, and they were important as opportunities to discuss the experience of meeting and interviewing a student, the difficulties of asking race-related questions—particularly when the team member and the student were not from the same racial group—and the often surprising ways students were interpreting their environment.

Faculty experiences
One of the principles of contextual problem defining is that faculty members, through situated learning, have to think critically about the situation of students of color in order to assume greater accountability for equitable educational outcomes. Toward this end, our objectives were for the faculty participants to understand the cultural and structural barriers
students of color face in gaining equal academic outcomes; to engage in critical thinking about the social, political, and structural forces that affect students’ experiences; and to become empowered to address unequal outcomes.

To evaluate our progress in achieving these objectives, over the course of eighteen months, we interviewed and observed four white faculty members who participated on this team from its inception. Based on our evaluation, we provide glimpses of faculty members’ experiences in contextualized problem defining to illustrate the potential of this approach as a means of fostering learning and change that reflect the emergence of equity thinking and doing. The excerpts provided below are taken from interviews conducted with each participating faculty member after each round of student interviews. In some cases, we also provide excerpts from conversations that took place during the research meetings of the inquiry group.

Barbara
After hearing stories about professors who shut out minority students or who “hadn’t created a space that made [alternative] viewpoints welcome” in the classroom, Barbara, a professor of biology, began to think about how she approached students in her own classroom. She confessed that she often connected with students who think or behave as she does, and sometimes dismissed those who do not. “What it made me think about,” Barbara reflected, “is that I need to make sure that I leave a space open in the classroom for people that may not think the same way that I think.” She concluded that she needed to give more attention and feedback to students of color in her classes, especially early in the semester before they fell through the academic cracks.

One of the students Barbara interviewed had participated in the campus multicultural summer program and reported making strong connections to peers in the summer cohort. The student “needed to have this group of like-minded, like-experienced students that she felt she could rely on.” This reliance on the students’ peers lasted throughout the first year. This student’s story made Barbara “think how important that sort of pre-college experience can be to some of our students.” The following summer, Barbara decided to teach in the multicultural summer program.

Grace
Grace, another biology professor, felt that the way the student interviews “affected [her] behavior most was as an adviser.” While some students relied on advisers for signatures alone, others “sat down with them and talked about all kinds of things.” Grace realized that “personal involvement is a big component in how [the interviewees] feel about school, how they feel about themselves.” Based on her student interviews, Grace identified work-study and financial aid as issues that are particularly critical to success, and she responded by discussing financial matters with her own advisees. For example, with an African American student, she made a concerted effort to broach topics pertaining to summer employment or internship opportunities. “I’m trying to keep on top of his work-study commitment, and I never would have thought of that before.”

For Grace, one of the most poignant lessons came from an interview with a Latina whose first language was not English. “I found out how she has struggled to find her place and her voice in this community. I have learned how she struggles with participation in class with the added burden of thinking about how she will be perceived every time she opens her mouth.”

The interview process also helped Grace to problematize the notion of diversity. Her research team found that students felt misled by campus recruiting strategies that painted a picture of a diverse campus. “It’s a calling card and a money maker to call itself diverse,” Grace reflected. “Maybe this is backfiring in a way. Maybe [students] feel a burden about carrying this banner, but it’s not as diverse as its banner said. Maybe we need to work more at the substance and a little bit less on the window dressing.”

Jack
An English professor who has held a variety of leadership roles on campus, Jack also found himself thinking about the interview process in relation to student advisement. He felt he had learned things about students that could, in turn, help him to become a more effective adviser. “I probably am in a position to help [the interviewees] more than I am with the students who actually come to me for advice under the structures of the college’s advising program,” he said. “I should probably just spend more time talking, one-on-one, with my students, period.”
In speaking about “Anglo, mainstream, upper-middle-class, mainly male faculty” like himself, Jack said,
I think we need, first of all, to be honest and
to recognize that racial, ethnic, economic
differences really are very significant. That
they’re not matters of indifference to our
students. That your color, your family back-
ground, your economic background, your
cultural background, have tremendous con-
sequences for who you are in the classroom,
and for those things that the professor sees.
And I think, because there’s a lot of work
involved in acknowledging that, or in doing
something about it once you’ve acknowledged
it, I think that we often want to shy away
from it.
Just to acknowledge these issues is particularly
difficult for white faculty, Jack realized, espe-
cially those who want to believe that discrimi-
nation is not a problem in higher education.

Matt
During the summer break following the first
year of interviews, Matt, a mathematics pro-
fessor, decided to send an e-mail to the students
he had interviewed during their freshman
year. In response, he received “an e-mail from
the woman who was totally disconnected
when I first interviewed her…. She said, ‘It
makes me feel so good to hear from you since
not that many people write me and it makes
me happy to know a faculty member thinks
about me and my summer.’” Matt reported
that the interviews helped him make a per-
sonal connection with a student who was vul-
nerable to dropping out. “It is one thing that
is going to keep the student here, make them
successful and feel that they belong here.”

At the end of the project, Matt reflected on
his experience interviewing students:
This project has been invaluable to me as
I weave the personal stories of three of our
students of color, their perceptions of the
institution, with my perceptions of the in-
stitution, our policies, and our structures.
It helps me gain a deeper sense of difficult
questions about equity that must be asked
and must be addressed. It helps me think
about how I bring my own experiences and,
yes, prejudices to the shaping of my teaching
and the other work I do in this institution,
and how this may or may not resonate with
all of our students.

Conclusion
None of the excerpts provided above reveals
evidence of a major breakthrough in thinking.
In fact, one could easily dismiss the insights
gained by these faculty members as elementary
knowledge that should be familiar to anyone
who has read the literature on the importance
of student-faculty relationships, stereotype
threat, or white privilege. These excerpts are
significant, however, insofar as they demon-
strate how much more powerful learning can
be when individuals construct their own
knowledge about these concepts within their
own context. As they become aware of specific
cultural and structural experiences that im-
pede student success within their own campus,
faculty members attain a clearer responsive-
ness about the issues that need to be tackled.
The individuals involved in this project have
the motivation to face a problem that others
may not see or, if they do, may accept as in-
evitable. Through the interviews, they are
learning what they do not know about minority
students; they are learning to question their as-
sumptions; and they are learning to problematize
diversity. Thus, the most promising outcome of
contextualized problem defining is the poten-
tial to inspire agency that is grounded in critical
reflection and that prompts individuals to bring
about change from the inside.

To respond to this article, e-mail liberaled@aacu.org,
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Critical Pedagogy and assessment in higher education: The ideal of ‘authenticity’ in learning

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Abstract
Current forms of marketisation in university systems create pressures towards purely ends-focused expectations among students and have implications for learning and assessment processes. The potential harm that these trends have on ‘learning’ should be resisted by educators and students alike. Critical Pedagogy approaches offer one way of conceptualising and implementing such resistance in the interests of ‘authenticity’ in learning. However, the issue becomes sharpest at the point of assessment. Here, the ideals of Critical Pedagogy can collide with student expectations of final degree success. By addressing the question of ‘authenticity’ for assessment in relation to Critical Pedagogy, this article explores the challenges posed by this conundrum and draws upon interviews conducted with module leaders who apply recognisably (although not explicitly) Critical Pedagogy principles in their teaching and in the types of assessment they use. The themes that emerged present a picture of the kinds of potential that Critical Pedagogy influenced forms of assessment have for supporting authenticity in learning, as well as the difficulties involved in its application. It also helps to trace out the possible boundaries for further inquiry.

Keywords
Assessment, authenticity, critical pedagogy

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Critical Pedagogy and higher education

The most influential theorist in the Critical Pedagogy tradition is Freire (1970, 1974). For Freire, learning must overcome oppression, be liberating, be ‘humanising’ and emerge from a ‘love for the world’. Through Critical Pedagogy, the learner must become more ‘conscious’ of their situation and of how to change it: a process Freire termed ‘conscientisation’. Finally, throughout Freire’s work, there is a discernible and sometimes forcefully expressed concern with ‘authenticity’. For Freire, authentic learning is critical, rational and transformative. Modes of learning that are rooted in oppression and self-interest can only be irrational and based not upon trust but upon deception. Only modes of learning that lead to emancipation then can truly be regarded as authentic.

In the educational context, ‘authenticity’ means learning in the sense of ‘understanding’ as opposed to the mechanical memorising-of-facts. This deceptively simple statement obscures complexities of learner motivation. Pegg and Carr (2010), for example, employing Bourdieu’s (1998) concept of illusio, have explored the ways in which the learner adapts to the ‘rules-of-the-game’, both espousing a belief in ‘learning for its own sake’ while operating a personal calculus of optimal outcomes from the formal educational programme. There are complexities also in the structure of the learning environment. Universities, for instance, are institutions with established ways of doing things, with cultural norms, rules, protocols and hierarchies that have operated over decades. Critical Pedagogy, by definition, seeks to introduce an alternative set of norms that are not necessarily compatible with current trends in higher education. Some have explored the difficulties faced by educators who strive to deliver authentic learning within the necessarily artificial environment of the modern university (Stein et al., 2004). Others have risen to this challenge by paying close attention to the means by which ‘authentic learning environments’ can be created via online platforms and through blended teaching methods (Herrington et al., 2007, 2014). Concerned also with the challenge of ‘authentic learning’ in the context of increasingly marketised forms of higher education, a new generation of theorists has developed Critical Pedagogy using pre-Freirean traditions of thought. The ‘Student as Producer’ movement (Neary and Winn, 2009) has gained traction in some progressively inclined British universities; particularly at the University of Lincoln, where it is becoming established as the in-house educational model for social science and humanities curriculums. Pioneering this, Neary (2013) particularly emphasises the influence of Benjamin (1998) and Vygotsky (1978).

Benjamin (1998) explores the inter-dependencies between the technical aspects of creative production and its consequences for the relationship between artists and writers, and their audiences. By critiquing the technical modes of creative production that operate within capitalist social relations, artists, no longer believing in their own ‘magic strength’ (Benjamin, 1998: 103), cannot connect meaningfully with the audience, as a hitherto fixed and fundamentally alienating relationship is deconstructed. As Neary (2013) notes, however, while applying such critical thinking to educational processes, the limitations of the ‘Student as Producer’ model are brought into sharp relief when it comes to the question of formal assessment. In particular, he notes that learning outcomes are antithetical to the model in that they can become overly prescriptive, stifling creativity and undermining ‘critical, open-ended notions of student-centred learning’ (Neary, 2013: 8). The result is forms of assessment that encourage an instrumental and success-oriented student mentality – the polar opposite of an authentic self-assessment of what has really been learnt. Of course, this type of problem is acknowledged and addressed elsewhere. Forms of peer-learning and assessment (Boud et al., 1999), dialogue-based modes of assessment feedback (Nicol, 2010), student self-regulated models of learning (Nicol, 2009) and self-assessment (Orsmond et al., 2002), for example, all have a central place in the current generation of educational scholarship. Throughout all these types, assessment is taken to be part of the learning process, rather than as something that is mechanically ‘attached’ at the end of a programme of learning. Indeed, for this study also, ‘learning’ and ‘assessment’ have been linked and are frequently referred to conjunctly.
The marketisation that has intensified in higher education in recent years has introduced processes and practices that create obstacles to authentic learning and assessment (Fenton, 2011; Giroux, 2011; Neary and Winn, 2009). The recent leap in rates of student fees in the United Kingdom, coupled to a highly individualised ‘student-as-customer’ model, has elevated the ends (good grades) above the means (the learning process) in unprecedented ways (Bailey and Freedman, 2011; McGettigan, 2013). The net effect is, as Gibbs (2006) points out, that ‘students are strategic as never before, and they allocate their time and focus their attention on what they believe will be assessed and what they believe will gain good grades’. This individualised model of learning prevails in a highly commoditised system of higher education, even where there is clear evidence that collective learning strategies based on mutual support and solidarity are more effective (Burgess-Proctor et al., 2014). However, it is because of this ontological ‘crisis’ in education that Freire’s insistence upon authenticity in learning assumes special importance (Giroux, 2010; Toscano, 2011).

Towards ‘authenticity’ in assessment

Over recent years, there has been an ongoing interest in and development of participative approaches to academic assessment. There are many reports, for instance, of innovations in assessment that employ students’ reflections upon their own work and accounts of how they judge their own performance against agreed standards or through discussion with peers (Bromley et al., 2007; Mulder et al., 2014; Smith and Sodano, 2011; Stefanou et al., 2013). While much of this work has focused on the potentially empowering character of such approaches, some studies have also addressed issues of assessment rigour and reliability (De Grez et al., 2012; Lindblom-ylänne et al., 2006). A smaller sub-set of studies have also considered approaches to assessment that are more explicitly influenced by Critical Pedagogy in a higher education setting (e.g. Keesing-Styles, 2003).

Reflecting upon a decade during which radical educational practice had gained currency in higher education, with alternative forms of assessment increasingly in evidence (e.g. self-assessment, peer-assessment, consultative-assessment and participative-assessment), Reynolds and Trehan (2000) commented on the relative absence of applications of Critical Pedagogy principles to assessment methodologies. The result, they argued, was approaches to assessment that remained either at worst hierarchical in the traditional and didactic sense or, at best, falsely participative insofar as power relations remained unquestioned. In this situation, the experience of ostensibly participative assessment for students could be actually disempowering: ‘If self-awareness, consciousness-raising or reflexivity are introduced into the assessment process without power, authority and judgment-making being examined or changed, students have even less control than in more traditional methods’ (Reynolds and Trehan, 2000: 71).

More recent work echoes these earlier concerns with an emphasis on the learner’s disposition-in-the-world that pushes assessment beyond formal attainment outcomes (Boud, 2014; Kreber, 2014). Still, far more work is needed to establish Critical Pedagogy as an educational philosophy that can work for assessment. Relating to this issue then, the key interest driving the study reported here was that of ‘authenticity’ in assessment in relation to Critical Pedagogy. Drawing upon Freire’s notion of ‘authenticity’ in its interconnected pedagogical and political aspects, it was conceptualised for this research as having the following strategic intentions:

- To recognise and make more visible the material impact of power relationships in the educational process;
- To reshape the relationship between teachers and learners;
• To facilitate the development of students’ social consciousness as part of the learning process;
• To involve dialogue as opposed to what Freire called the ‘banking model’ of education – to allow teachers and students ultimately to become co-investigators.

The principal aim of this research was to explore whether methods of authentic teaching and learning that deliberately subvert the conventional student and teacher relationship, that deconstruct the formal educational environment and curriculum and that invite students to question the standard modes and tropes of formal learning can be combined with demands for clear learning outcomes and recognised forms of assessment required by university quality assurance processes. Such principles might encourage student learners to be open to personal change through their learning; be concerned with knowledge and understanding before accreditation success; develop a deeper understanding of their own life experience, cultural identity, social background and personal viewpoint as valid in the learning relationship; critique the structures of oppression and hierarchy that shape the physical, social, cultural and pedagogical aspects of the learning environment; and to teach as well as learn in the context of a ‘learning-group’ or ‘learning-community’. These principles are also the types of outcome – less measurable than the normal learning outcomes found in standard module specification – that are crucial not just to the intellectual gain of individual learners but to broader aims of collective social and intellectual growth (McArthur, 2010a). So, it is the challenge for Critical Pedagogy approaches to assessment that this article responds to, with the notion of ‘authentic learning’ positioned as an ideal. The contribution it offers is a development of our understanding of the practical meanings of authenticity for assessment and learning in relation to Critical Pedagogy in a concrete setting. It seeks to answer the following questions. To what extent are applications of Critical Pedagogy principles in evidence for assessment? Where there is evidence of such principles being applied, to what extent is authenticity achieved? What are the issues raised? The aim is to develop the concept of ‘authenticity’ that is as central to Critical Pedagogy in assessment as it is to the ongoing learning process.

Methodology

This is an inquiry into existing practice for assessment in modules in the Faculty of Humanities and Social Sciences in which principles of Critical Pedagogy are being applied within the humanities curriculum at the University of Liverpool in the United Kingdom. Eight Year 2 and Year 3 undergraduate modules were used. Interviews with the eight staff members who separately co-ordinate those modules, to explore how successfully those principles are applied for assessment, were carried out.

Research design

The research used a purposive sampling strategy (Oliver, 2006). The sampling strategy relied upon the willing participation of colleagues in the Faculty. On 11 February 2014, a call was sent by the project-lead to staff with leading roles in teaching and learning at each school in the Faculty. This approach means that it is likely that some modules that would have been relevant to the research were excluded, simply because module leaders did not read the message, or were unwilling or unable to respond. In the 3 weeks following the call, details of 12 modules from across the Faculty were forwarded to the project-lead. The team then met a month after the call, in early March 2014, to discuss those modules with a view to selecting eight, based on the time constraints. The module sample was finalised on the following basis:
• To include as wide a range of ‘non-traditional’ teaching and assessment methods as practical (indicated by published teaching and learning/assessment strategies);
• To include a range of modules committed to the ‘authenticity’ of the student learning process (indicated by the degree to which students play a role in defining the perspectives and structures of learning adopted in the module);
• To include a range of modules committed to moving students to action and that promote and further the causes of social justice and democracy (indicated by both the modes of learning and assessment and by the substantive content of the module);
• To include as wide a range of academic disciplines from across the social sciences and humanities as was practicable.

All eight of the modules included in the study were taught by academic staff who worked with some level of ‘intuitive’ Critical Pedagogy. The modules that were included on this basis were a performance module for music students (Module 1); a module on immigration law (Module 2); a volunteering and experience module for arts students (Module 3); a module enabling law students to work on real asylum cases (Module 4); a module on community and public involvement for criminology, social policy and sociology students (Module 5); a module on ethnographic research in politics for criminology, social policy and sociology students (Module 6); a module on the global media industry for communications and media students (Module 7); and a work-based learning module for criminology, social policy and sociology students (Module 8). All of the students on these modules were ‘young’ (18–21 years) full-time undergraduate students.

The interview schedule

The interview schedule was designed to provide a common overall structure for each discussion. It laid out broad inquiry themes while allowing a degree of latitude for exploration of important or interesting themes that emerged. The interviewers used the following schedule for each interview. (1) What do you understand by ‘Critical Pedagogy’? (2) Did anyone’s work, or a particular tradition inspire you? (3) Why do you assess in the way you do? (4) What were your thoughts when you designed this module assessment, considering the following: reflecting the student’s ‘lived reality’, outside normal structures of learning; allowing students to be ‘free learners’ (i.e. not passive recipients of knowledge); moving students to action and involvement in the world; and challenging inequality? (5) Please talk to us through what you do in terms of non-traditional assessment. (6) What kinds of activities and/or learning strategies are organised to support the assessment? (7) What problems have you faced in applying these approaches? (8) How does this approach to teaching fit with your research work? (9) How successful do you consider the module assessment to have been, considering the following: reflecting the student’s ‘lived reality’, outside normal structures of learning; allowing students to be ‘free learners’ (i.e. not passive recipients of knowledge); moving students to action and involvement in the world; and challenging inequality? (10) What are your observations of how students from different social backgrounds experience the module assessment? (11) What kinds of student feedback do you typically get? (12) Have there been any issues or complaints from students about the form of assessment? (13) Have there been any problems of student participation in learning arising from these approaches? (14) Have there been any institutional barriers to the assessment approaches you have adopted? (15) What do you think could have been done to overcome those barriers?

Analysis

The interviews were conducted by the students who were part of the research team in May 2014. Interview transcripts were then analysed to allow major themes to be delineated and key responses
Findings

Awareness of Critical Pedagogy

Most module leaders had no detailed understanding of the tradition of Critical Pedagogy. Two were aware of Freire’s work, and one expressed familiarity with Henry Giroux’s work (although not his work on Critical Pedagogy). However, all of the participants did report motivations for developing particular approaches to teaching that corresponded closely to aspects of Critical Pedagogy. The leader of the performance module for music students, for example, reported that he had read critiques of the ‘banking model’ since being asked to participate in the research and noted a natural affinity with this approach and the way he taught music:

I had no idea there was such a thing … so I’ve looked it up, and as I understand it, it is the assumption that a student changes from being an object to fill with information to an active participant. Now, the reason why I’ve never heard of it is because you cannot fill somebody with the knowledge as to how to play the violin. It doesn’t work that way, never has done, never will. (I1)

Authenticity and the learning process

A key theme that emerged from the interviews was that the complexity and contradictions that students face in the real world are less easily captured in traditional learning strategies. A unanimous response was that student-led research work in particular opened up a rich process of social inquiry. As one noted, what students commonly find in their investigations into local politics is that ‘… things are not always as simple as they seem and the lines we draw are not as obvious and clear when we actually come to engage with practices’ (I7).

Moreover, where the project or research problem itself throws up unexpected findings or problems, a reflexive element in the assessment can allow students to use this as part of a learning process. ‘If [something] broke down, that could be written about. So, there is that opportunity to reflect on why it didn’t work. The fact that there is that reflexive element mitigates that problem’ (I3). This kind of reflexive practice was incorporated into four of the modules.

There was also a general awareness that the traditional techniques and skills students are taught within academic disciplines can be very limiting. The process of music performance, for example, by definition involves both autonomous learning and an element that is important for authenticity in Critical Pedagogy approaches: the ability to be autonomous. For some, encouraging creativity also ensured that each student developed an independent and even unique approach to their work.

A majority argued that developing a range of assessments was crucial to enabling a more open and inclusive style of learning. As one noted,

What I assess is the process, rather than the end result. What needs to happen is that the teacher and the pupil need to understand how you get to be good, and that is an assessment of the process. The process is where the work is. (I1)

Some argued explicitly that more traditional forms of assessment are less authentic to students, simply because they tend to be removed from their cultural experience.
Active learning

For the majority of participants, practical engagement with the world was crucial to developing alternatives to traditional ways of teaching. Indeed, two noted that they incorporated elements of their teaching which involved students in building the curriculum. In those two modules, students were asked about the particular skills they felt they needed to work on, and a workshop around those skills was then designed into the schedule. In one, open ‘learning cafés’ are used for which student-groups have an appointment with their tutor to discuss progress on the course in more general, unstructured, terms. Another participant reported that their module used student fieldwork in a manner that facilitated active learning. The majority of participants noted that the relationship between students’ personal experience and the subject matter at hand was intimately connected to creating opportunities for critical reflection in the classroom. Indeed, for some, it was as important for students to critique their own experience-based knowledge as it was for them to simply to draw upon that experience.

Motivating students to action

Participants were asked about the extent to which they invited students to actively engage in the world, particularly on issues of social justice and equality. All eight said that the teaching and assessment styles used in the various modules were important in motivating students to action. Some also reported that raising awareness around a series of social and political issues did lead to student-activism. Considering also the educator, teaching in a truly critical sense requires that they challenge their own perceptions or assumptions. For example, one module leader highlighted the need to challenge how to conceptualise ‘student engagement’ in the first instance:

… for some people, keeping a family together is the most political activity to engage in. It can be incredibly difficult, particularly if you live in a bad area where things are difficult, resources are stretched, asking them to engage over and above with political issues is a very difficult thing to do, because they’re very insecure you know financially, socially insecure; they don’t have the security to say ‘actually I’m free tonight and I’m going to go off and campaign’ about whatever. Many do … so that’s also to be highly respected. But you should also respect those who don’t … we shouldn’t necessarily say action comes in one particular form. It takes many different types of forms and lots of things can be political when you think about it. (I7)

For those module leaders that administrated student placements in external organisations (three in the sample), social action was often about mutual exchange and co-operation in the community. In one module, a community organisation was invited to participate in the assessment as part of a mutual learning process. These members of staff all noted that it was also important that students were encouraged to think critically about the organisation they were collaborating with.

Critical Pedagogy as transformative practice

All of the module leaders claimed a personal transformative potential for their teaching approaches. This transformative potential was explained in two broad senses: first, as enabling students to move beyond the perspectives that had resulted from their background or social position; second, as supporting students’ growth in personal confidence, rising to challenges beyond the formal programme, that they had previously found daunting. Two participants were cautious about a simplistic, ‘top-down’ and essentially inauthentic approach to transforming students’ social awareness or consciousness. One, for instance, talked about the dangers of reproducing a ‘socially aware’ but
nonetheless *banking*-type model of teaching. For the second sense of transformative impact, module leaders reported a marked difference in the confidence of students as their module progressed. As one teacher put it,

> Going into court can be quite a daunting thing … Once they’ve done it, it has an impact on students’ confidence … so there is an anxiety about it and then the overcoming [of that anxiety] and then there’s the strength in the overcoming which is quite nice to see. (I5)

This theme of personal transformation of different types recurred throughout all of the interviews. Six interviewees reported that they could clearly see students change their minds about issues they engaged with and could also see how their perspectives changed when confronted with ‘the unfamiliar’ in a learning situation. Indeed, for some students, this could be radicalising as they shed long-held beliefs.

**Institutional barriers**

For most modules, room facilities were seen as a key barrier to developing alternative learning and assessment approaches. Three participants reported that facilities were wholly inadequate for what they were trying to achieve in the classroom. Another pressure noted was the structure of the university year. One pointed out that the semesterised system, with a requirement that teaching be carried out across two semesters of 12 weeks, was not flexible enough to achieve a level of interaction that would produce the best results. A rigid application of anonymous marking also caused problems for authentic assessment strategies. The unconventional nature of the assessments in most cases required that more time be allowed to support the students who were unconfident about these types of learning and assessment. In some modules, the formative nature of the work, for example, meant that ongoing developmental feedback in workshops was time intensive. In modules that employed collaborative relationships in the community, there were additional time and resource pressures.

**Student resistance**

For most of the participants, key barriers to developing authentic learning included the expectations and commitment of students themselves. As one noted, the idea that being an ‘autonomous learner’ was an *option* to be offered to students made little sense. In other words, students, in the experience of this module leader, had to be *forced* to be ‘autonomous learners’. The module was set up in a way that if students did not engage in autonomous learning strategies, they would not be able to pass the module. Others related this issue to the context of a marketised university system in which students expect learning strategies and resources to be ‘delivered’, and in which students expect learning to be less rather than more autonomous.

A majority of the module leaders also reported that students typically found their module more challenging than other modules. Half of the sample noted that although students tend to find their module highly rewarding, at the outset, the intensity of the work was a source of student complaints: ‘We get: “It’s a lot of work.” We get “It’s a real shock to the system. I knew it would be a shock, but it’s more of a shock than I imagined”’ (I4).

Four reported that they had to deal with student antipathy to, or fear of, a new style of learning and assessment. This anxiety means that the module leader is required to dedicate more time to reassuring students in classroom discussion. ‘I think it’s because it’s unusual, they haven’t really come across it. So, I do spend quite a lot of time in the seminars saying: have you got any questions
about the assessment?’ (I2). In the case of the modules that involved fieldwork-based assessments, it was reported that students simply feared being out of the classroom and encountering different organisational settings. Another problem was student concerns about inconsistencies of marking standards across modules. On some modules, students were worried that a higher standard of work was required, or that the marking criteria would be different from other modules.

All of the module leaders reported recording consistently high and above average levels of student achievement in their feedback. They all noted that their modules tended to see relatively high levels of student performance. In three modules, the results were typically higher than any other module in the department. As one noted, ‘It’s down on the left-hand columns and it’s very, very embarrassing. I mean, any single sheet is all down the left-hand column … “Excellent, excellent, excellent …” every single sheet, every year’ (I1).

One module leader reported that some weak students tended to do better because they responded to the social relevance of their work on the module. The preparedness of students for different forms of assessment and different learning strategies was reported by another as dependent upon the extent to which they have experienced them earlier in their degree programme. In this sense, Critical Pedagogy approaches, even where they are not explicit, applied extensively across a programme can help to prepare students for explicitly alternative forms of module assessment later on.

**Conclusion**

To summarise, the findings of this research were that none of the participants explicitly applied Critical Pedagogy to their assessments, that all of the participants applied approaches that conformed implicitly to aspects of Critical Pedagogy and that there were examples found of students being involved in curriculum design. For the purposes of assessment in many cases, students were encouraged to develop their own approaches to complex challenges, reflect personally upon their own development and learning, reflect upon their own ‘lived realities’ for the purpose of assessment and learning, address questions of power and hierarchy in learning contexts, consider their own personal learning constraints and critique dominant ways of interpreting the world.

All of the module leaders worked with some level of ‘intuitive’ Critical Pedagogy, even if they did not follow a particular author or refer to a specific pedagogic school of thought. Within the sample, a range of innovative ways of enhancing learning could be identified that unconsciously applied some of the core values of Critical Pedagogy in their assessment design. In many cases, the object of those assessment strategies was to enable students to play a part in developing their own approaches to complex questions, and even to define research questions and shape the topics of inquiry themselves. Alternatively, the key motivation was to allow students to reflect upon their personal development and skills acquisition. Participants reported that student-led research work opened up a rich process of social inquiry. Two of the modules involved students in building the curriculum themselves. Continuous reflexivity, for example, aimed to enhance students’ experience of the learning process. In some of the modules, students were required to use their own interpretations of their social environment. In others, they were required to critically assess their own life experience in order to gain a better understanding of the perspectives of other social groups.

There were explicit claims across the modules analysed that teaching and assessment approaches were challenging the traditional relationship between students and teachers, enabling the learner to reflect on power differentials in the educational arena. For some, this meant that such power differentials were explored in collaborative project work with tutors, with other students and with community organisations. These modules were also described as offering students a potentially transformative learning experience by providing opportunities to overcome the intellectual and
emotional constraints arising from their background or social position. For others, the transformative process occurred simply by giving students the confidence to deal with novel and difficult assessment tasks. The majority were explicitly committed to allowing students to critique dominant ways of seeing the world. Resonating with Kreber’s (2014) emphasis on unfamiliar experience – or ‘the strange’ – as an aspect of authentic learning, this meant that their understandings of the social world were challenged. Indeed, for some, introducing an understanding of the social and political dimensions of their subject in ways that identify power and oppression was their key motivation.

Limitations need to be acknowledged. This study is not representative in design. The sample was purposive and based on a broadly uncritical acceptance of responses to the call-out for participants. No requirement was imposed upon the respondents to justify their decision to include themselves in the research. The reliance on staff responses to the research call-out does mean that some modules of relevance might have been overlooked, again emphasising the non-representative character of the sample. The type of evidence considered is that of participant testimony. The participants were interviewed for their own perspectives regarding approaches to assessment within their modules. In that sense, the research relied upon participants’ opinions of their own practice and of their students’ responses to and experience of that practice. No interviews were conducted with students to validate the accounts given. In particular, this means that assessments of student performance and experience were wholly reliant on the views of these tutors. While valid as perceptions within a purely interpretive study, these participant assessments would need further verification independently of this testimony to enable claims for pedagogical efficacy to be made with confidence. The study was also university- and discipline-specific. Further work will be needed to strengthen the evidence base for the conclusions reached here. Crucially, research with students on these types of modules would be important to validate the perspectives offered by these participants.

As has been argued, there are considerable structural barriers to the application of Critical Pedagogy in the modern university. Noting the warnings by Reynolds and Trehan (2000) previously alluded to, regarding the danger of inauthentic (and therefore oppressive) forms of participative assessment, the problem that always confronts a subverting culture entering a dominant culture is that the former will lose its autonomy to the latter. In that scenario, attempts to impose student participation for teaching and assessment can lead to inauthentic ‘mimic-type’ forms of Critical Pedagogy. The participants were generally aware that this was a potential problem, and some questions were raised in relation to processes of incorporation. It is important to note, then, that all of the modules included in this study were designed by staff members who were individually (or collectively in their departments) very committed to developing non-traditional learning strategies. None of the participants felt that the Critical Pedagogy aspects of the modules identified in this research had been directly encouraged by the institution at Faculty or University level; however (and importantly), neither were they discouraged. Still, these module leaders did not generally feel supported by the institutional environment in their attempts to pursue alternative forms of assessment. Indeed, a series of unintended institutional conditions restricted critical assessment approaches. These included a lack of appropriate room facilities, the structure of the university year and the rigid application of anonymous marking. None of these would generally be regarded as problems within more traditional modules. These conditions merely reflect that fact that despite frequently stated commitments to inclusivity for education, explicit Critical Pedagogy orientations are not mainstreamed in the university system. Participants were also aware of the more general problem of seeking transformative forms of learning and assessment practice in a system that is in many ways increasingly inclined away from Critical Pedagogy. Validating Neary’s (2013) concerns regarding problems created by an exclusive emphasis on learning outcomes, these module leaders were acutely aware also of the importance of their emphasis on the process of learning, rather than adopting a simple reliance on the measurement of outcomes.
As we have seen, Gibbs (2006) has drawn attention to the levels of student instrumentality that have been raised by the marketisation of higher education. Indeed, a significant area of difficulty described by the participants was that of how students themselves responded to some of the assessment approaches employed. At the same time, it was precisely the possibility that their assessment results might be compromised by a new and challenging (even though authentic) form of assessment that makes students nervous and in some cases unwilling to engage in those modules. The marketisation and commoditisation of higher education, however, have made it simultaneously more difficult and more important to pursue principles of Critical Pedagogy. Again, this was a contradiction that participants were well aware of. Yet there are practical advantages to offering assessments based on principles of Critical Pedagogy that can resist some of the worst effects of marketised education. Assessments that depend upon a high level of authentic and original student work, especially those that involve students formulating their own research questions, are not those in which students can simply draw upon standard texts. In an increasingly results-focused system of higher education, self-directed learning strategies allow the process of learning to be valued, rather than the grade alone. That said, in terms of the final grading of students, it is also clear that students, on those modules, did perform very well; indeed, based on these testimonies, students often performed better overall than on more traditional modules, supporting the findings on this theme by Burgess-Proctor et al. (2014). Intriguingly, this suggests that applications of Critical Pedagogy may even help to bridge the gap between authentic learning and authentic assessment. In so doing, it may help us to meet the challenge identified by Pegg and Carr (2010), created by the ways in which students learn the ‘rules of the game’ as they move from the processes of learning towards its end-goals.

In conclusion, and on the strength of the findings from this research, it seems that formal assessment, rather than necessarily presenting an limiting boundary for Critical Pedagogy, may be an area that could benefit greatly from a more explicit application of its core values and working principles. If so, Critical Pedagogy approaches may offer an important route to maintaining not only high-quality educational experience and authentic learning for students but also new approaches to assessment that can work albeit under increasingly inclement conditions.

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As educators who teach social justice education, we often struggle with student resistance to new and challenging critical frameworks. In this essay, we address students directly and offer guidelines for constructive engagement. These guidelines address common barriers such as: lack of intellectual humility, conflating opinions with informed knowledge, relying on anecdotal evidence, inattentiveness to positionality, and valuing grades over comprehension. The essay includes vignettes and examples that illustrate each of these guidelines, as well as a glossary and discussion questions that can be taken up in class.

Keywords: social justice education; learning strategies; student resistance

The struggle has always been inner, and is played out in outer terrains. Awareness of our situation must come before inner changes, which in turn come before changes in society. Nothing happens in the "real" world unless it first happens in the images in our heads.

Gloria Anzaldúa (2009, p. 310)

If you are reading this essay, you are likely enrolled in a course that takes a critical stance. By critical stance we mean those academic fields (including social justice, critical pedagogy, multicultural education, anti-racist, postcolonial, and feminist approaches) that operate from the perspective that knowledge is socially constructed and that education is a political project embedded within a network of social institutions that reproduce inequality.

In your course, you will be studying key concepts such as socialization, oppression, privilege, and ideology and doing coursework that challenges your worldview by suggesting that you may not be as "open-minded" as you may have thought. You are encountering evidence that inequality not only exists, but is deeply structured into society in ways that secure its reproduction. You are also beginning to realize that, contrary to what you have always been taught, categories of difference (such as gender, race, and class) rather than merit alone, do matter and contribute significantly to people's experiences and life opportunities.
When confronted with evidence of inequality that challenges our identities, we often respond with resistance; we want to deflect this unsettling information and protect a world view that is more comforting. This is especially true if we believe in justice and see ourselves as living a life that supports it. Forms that resistance takes include silence, withdrawal, immobilizing guilt, feeling overly hopeless or overly hopeful, rejection, anger, sarcasm, and argumentation. These reactions are not surprising because mainstream narratives reinforce the idea that society overall is fair, and that all we need to overcome injustice is to be nice and treat everyone the same. Yet while comforting, these platitudes are woefully out-of-sync with scholarly research about how society is structured. The deeply-held beliefs that inform our emotional responses make studying and teaching from a critical stance very difficult. Further complicating the challenges of facilitating social justice content, many instructors who teach these courses occupy marginalized identities, which add more layers that we will discuss later in this essay (c.f. Dlamini, 2002; King, 1991; Schick & St. Denis, 2003; Williams & Evans-Winters, 2005).

In addition to being asked to question ideology that is deeply internalized and taken for granted, critical engagement rarely provides concrete solutions. This ambiguity can lead to frustration, for our K–12 schooling (especially in Canada and the United States) has conditioned us to seek clear and unambiguous answers. In other projects we have taken on some of these forms of resistance and provided strategies for responding to them (c.f. DiAngelo & Sensoy, 2009, 2010, 2014; Sensoy & DiAngelo, 2012). In this essay, we pull these various strategies together and offer an overall framework for critical engagement. We draw on research and our years of practice teaching social justice content and share the vignettes and guidelines that have been most effective for our own students. A glossary of key terms used can be found at the end of this essay.

**An Open Letter to Students**

Courses that address social justice and inequality through a critical lens often challenge mainstream understandings and thus bring to the surface patterns and tensions that other courses do not (Gallavan, 2000; Kincheloe, 2008). We believe that this is due, primarily, to two key reasons:

The first is that many of us are underprepared to engage in the course content in scholarly ways. Basic study habits, reading comprehension, writing skills, vocabulary, and critical thinking are often underdeveloped in college students. Ironically, much of this is due to structural inequalities that courses like these try to address. For example, political and economic pressures on schools to focus on standardized testing have resulted in moves away from intellectual curiosity, critical thinking, and engagement with ambiguity and towards creating conforming and compliant students who can memorize the "one right answer" to pass the test. Differences in the kinds of schooling we receive and the differential futures they prepare us for are based on structural inequalities related to our race, class, gender and other social locations. These differentials affect our preparation for college and university-level engagement and are examples of the kind of inequalities that social justice oriented courses address. The ultimate goal of social justice education is to enable us to recognize structural inequalities in ways that prepare us to change them. However, the socio-political context of schooling makes critical engagement challenging for many students, and this challenge is heightened when the topics under study are politically and emotionally charged.

This leads to the second reason that courses that address social justice and inequality bring to the surface patterns and tensions that other courses do not: most of us have very strong feelings and opinions about the topics examined in social justice courses (such as racism, sexism, and homophobia). These opinions often surface through claims such as:
"People should be judged by what they do, not the color of their skin"

"I accept people for who they are"

"I see people as individuals"

"It's focusing on difference that divides us"

"My parents taught me that all people are equal"

"I always treat everyone the same"

"I've been discriminated against so I don't have any privilege"

"Our generation is more open-minded"

"I have friends from all races and we are all fine with each other"

"I don't think race and gender make any difference -- as long as you work hard"

"It's White males who are the minority now"

"Women are just as sexist as men"

While these opinions are deeply held and appear to be "common sense" truth (and not opinion at all), they are predictable, simplistic, and misinformed, given the large body of research examining social relations. Yet, the relentless repetition of these ideas in the mainstream makes them seem true, and allows us to form strongly held opinions without being particularly educated on the issues (Sensoy & DiAngelo, 2012). Indeed, where we are members of dominant groups (e.g. if we are men, Whites, cisgender, able-bodied), we will almost certainly have a superficial understanding because that is the primary message made available to us through mainstream society. Where we are members of minoritized groups (e.g. if we are women, People of Color, transgender, People with disabilities), we may have a deeper personal understanding of social inequality and how it works, but may not have the scholarly language to discuss it in an academic context.

Further, it is a rare individual who is dominant in all key social groups, or conversely is minoritized in all key social groups. Yet messages that circulate in mainstream society do not prepare most of us to conceptualize or develop the language to discuss our intersecting identities in any depth. Take for example the intersection of race and class and consider a White woman who lives in poverty. While she will face many class barriers, she will not face racism. Yet a poor White woman--while not facing racism--will face barriers related to her gender--sexism--that a poor White man will not. For example, she will be more likely to be held responsible for the care of her children, she will be more likely to earn less than a man, and she will be more at risk for male violence, all of which increase the burden of poverty. Yet mainstream culture tends to present poverty as if there is a collective and shared experience of "the poor."

Without practice and study beyond what we absorb in our daily living, we are ill prepared to understand social group injustices. Therefore, our perspectives on issues like poverty and social inequality are necessarily lacking--and especially so if we ourselves are not poor. These perspectives include the idea that if we don't believe in things such as social inequality, then we don't participate in
them. Mainstream culture prevents us from understanding a central tenet of social justice education: society is structured in ways that make us all complicit in systems of inequality; there is no neutral ground. Thus an effective critical social justice course will unsettle mainstream perspectives and institutional discourses, challenge our views about ourselves, what we think we know about society, how it works, and our place in it.

Unfortunately, when we are new to the examination of social relations, we only know one way to respond to ideas studied in the course: "If the professor is saying that I participate in systems of injustice (such as racism), s/he is saying that I am a bad person (a racist)." Later, we should come to understand that this is not what our professors are saying, and that binary ways of conceptualizing these issues (good/bad, racist/not-racist) are part of what prevents us from seeing them.

In sum, the combination of under-developed academic skills, difficult theoretical concepts, and highly charged political content that is absent of complex analysis in mainstream culture, all of which is embedded within an institutional context that is structured to reproduce inequality, make these courses very challenging for most of us. Yet basing our knowledge on such sources as personal opinions, self-concepts, anecdotal evidence, hearsay, intuition, family teachings, popular platitudes, limited relationships, personal experiences, exceptions, and mainstream media is insufficient for understanding and responding constructively to social injustice.

Therefore, to maximize your learning of social justice content, we offer the following guidelines:

1. Strive for intellectual humility.
2. Recognize the difference between opinions and informed knowledge.
3. Let go of personal anecdotal evidence and look at broader societal patterns.
4. Notice your own defensive reactions and attempt to use these reactions as entry points for gaining deeper self-knowledge.
5. Recognize how your own social positionality (such as your race, class, gender, sexuality, ability-status) informs your perspectives and reactions to your instructor and those whose work you study in the course.

In what follows, we explain these guidelines in more depth and how they can help you engage constructively with social justice content.

A Story: The Question of Planets

Imagine: You are in a course that fulfills a university science requirement. The professor holds a Ph.D. in Astronomy. He has written several books, is widely published in academic journals, and has a national reputation in his field. The course objectives include defining terms used in modern Astronomy and exposure to the practices, methodology, and concepts of the discipline. The professor is reviewing the assigned readings, which present the most established theories in the field. He overviews the scientific community's discussion of the number of planets and states that based on the criteria for what constitutes a planet, only 8 planets are officially recognized in our solar system.

One of the students raises his hand and insists that there are actually 9 planets because that is what he learned in school. He has seen many books with pictures of the planets, and there are always 9. As further evidence, he recites the mnemonic he learned to pass all his science tests: "My Very Educated Mother Just Served Us Nine Pizzas." He states that he had a map of the sky in his
bedroom as a child and it showed 9 planets. Further, he says, his parents taught him that there were 9 planets and many of his friends also agree that there are 9. He spent his childhood camping out and looking up at the sky and identifying constellations, so he has experience in astronomy. The professor tries to explain to the student that to engage with the planet controversy one must first demonstrate understanding of the criteria for what constitutes a planet, but he is cut off by the student, who declares, "Well, that's your opinion. My opinion is that there are 9."

The professor tries once more to explain that what he presents in regard to the number of planets is not his opinion, but knowledge based on the scholarly community's established criteria for what defines a planet. Although at one time astronomers believed that Pluto qualified as a planet, as with all disciplines, their knowledge evolved. With the discovery of new information and further study they now understand that Pluto doesn't meet the criteria of a planet, in large part due to its shape. This is not an opinion, the professor repeats, but Astronomical theories that have resulted from ongoing research and study. The student replies, "I don't care if Pluto is square, diamond-shaped, or shaped like a banana, it's a planet, and there are 9 planets."

How likely is it that the majority of the class thinks our hypothetical astronomy student is raising a credible point? Would the class admire him for standing up to the professor and expressing the same understanding they had (but were too hesitant to bring up)? Even if his peers did share his view, that would not make his argument valid. It is more likely that he would be seen as having some academic challenges, as somewhat immature, and perhaps even disrespectful. It may even be assumed that he might have trouble passing the class.

**Guideline 1: Strive for Intellectual Humility**

Our hypothetical student is representative of many of students we encounter; he has not done the readings or has trouble understanding what he's read; he has limited knowledge but is resistant to increasing it; he clings to the same worldview he came into the course with; and he is overly-confident about his position. Scholars have referred to these patterns as a form of willful ignorance (Baker, 1990; deCastell, 1993, 2004; Dei, Karumanchery & Karumanchery-Luik, 2004; Schick, 2000). In our experience, students who have trouble understanding what they read seldom re-read, read more slowly, use a dictionary to look up new words, or ask their professors to explain difficult passages. Standardized testing and the punishment and reward system of grades are major contributors to these habits, as they have created a school culture that rewards conformity and single, correct answers over intellectual curiosity and risk-taking. Yet critical social justice education demands a different kind of engagement than most of us have been prepared for in our previous schooling.

Another challenge to intellectual humility is that many of us see social science content as "soft science" and therefore value-laden and subjective. On the other hand, the natural sciences such as astronomy are seen as "hard science" and therefore value-neutral and objective. Because of the presumed neutrality of the natural sciences, we are unlikely to argue with astronomy findings until we have some mastery in the field--knowing that we might not fully understand the concepts and theories presented. We are more likely to focus on gaining a basic understanding and not on whether we agree or disagree. If we perform poorly on tests, we might feel frustrated with the professor or material as being "too hard," but still recognize our own lack of knowledge as the primary cause of the poor performance.

Yet in the study of the social sciences--and particularly when the topic is social inequality--the behavior of our imaginary astronomy student is not unusual. In fact, it is common for students to
argue with professors prior to achieving mastery of the concepts and theories presented. Furthermore, students frequently cite anecdotal evidence to support their arguments and dismiss course content prior to engaging with the research. And unfortunately, students who "disagree with" social justice content are often taken seriously by classmates --even seen as a kind of hero for speaking up to the professor. Seeing the study of social inequality as a form of subjective scholarship, these students put it on par with their own personal opinions and dismiss it out of hand.

In academia (including the social and natural sciences), in order for an argument to be considered legitimate (such as how many planets there are, and whether or not racism exists), it must stand up to scrutiny by others who are specialists in the field. This scrutiny is called peer review. Peer review is the process by which theories and the research they are based on are examined by other scholars in the field who question, refine, deepen, challenge, and complicate the arguments, expanding the collective knowledge base of the field. Just as the astronomy professor's teachings are more than his "personal opinions," social justice professors' teachings are more than their personal opinions. Both instructors are presenting concepts that have undergone peer review. The overall evidence, theories, arguments, and analysis presented in class are rooted in the peer review process.

Most of us--especially when in introductory critical social justice courses--have seldom previously encountered--much less understood enough to "disagree with" --the scholars we read. Although some of us may bring important first-hand experiences to the issues (such as being a member of a particular minoritized group under study), we too can benefit from grappling with any theoretical framework before debating it. For the beginner, grappling with the concepts is the first step. To facilitate doing so, practice the following:

* Read the assigned material carefully. Look up vocabulary words and terminology that are new to you. Accept that you may need to read all or part of the material more than once. Consider reading passages out loud or taking notes of key points as you read. Practice using new terms in class.

* If there are terms or concepts you are still unsure about, raise them in class. It is likely that you are not alone in your confusion. Assume that your instructors appreciate questions that demonstrate engagement and curiosity, rather than apathy and silence that make it difficult to assess student needs.

* Strive to see the connections to ideas and concepts already studied. This will help with your recall, critical thinking, and ability to see the "big picture."

* Focus on understanding rather than agreement. Consider whether "I disagree" may actually mean "I don't understand," and if so, work on understanding. Remember, understanding a concept does not require you to agree with it.

* Practice posing questions. Because most students have been socialized to care more about getting the answers right and less about comprehension, we may fear that asking questions will reveal that we don't know the answers. Thus, we may make bold statements that lack intellectual humility. These statements could be more usefully framed as questions.

* Be patient and willing to grapple with new and difficult ideas. "Grappling with" ideas means to receive, reflect upon, practice articulating, and seek deeper understanding; grappling is not debate or rejection. The goal is to move us beyond the mere sharing of opinions and toward more informed engagement.
One place where grappling often falls short is in small-group work. For most instructors, the goal of small-group work is for students to spend time thinking through difficult ideas with others in order to deepen understanding and share insights. In addition to the specific prompts and questions that the instructor has given, all of the following could be taken up in small-group work:

* Asking clarifying questions of each other
* Making connections to other readings
* Identifying key concepts and defining terms
* Generating examples that illustrate the concepts under study
* Identifying patterns
* Developing questions
* Questioning relationships between concepts
* Discussing the implications for your own life and work
* Practicing articulating the ideas introduced in the course in order to clarify and increase your comfort discussing them with others
* Identifying and discussing challenging passages

Yet instructors often encounter small groups who are merely reinforcing their previous opinions, have moved on to engage in off-topic social banter, or are sitting in silence, checking email or texting because they are "finished" discussing the topic at hand. From an academic perspective, a small group should never be "done" talking about any topic they are given. Scholars have spent their careers developing these concepts, and a limited number of class minutes is not adequate to finish working through and understanding them. If you find yourself at a standstill, work through the bulleted list above, or ask your instructor for some prompts and check in about how you are doing in your comprehension.

Guideline 2: Everyone has an Opinion. Opinions are not the Same as Informed Knowledge

One of the biggest challenges to attaining Guideline 1--intellectual humility--is the emphasis placed in mainstream culture on the value of opinion. Mainstream culture has normalized the idea that because everyone has an opinion, all opinions are equally valid. For example, local news and radio shows regularly invite callers to share their opinions about questions ranging from "Do you think so-and-so is guilty?" to "Should immigration be restricted?" Reality shows invite us to vote on the best singer or dancer, implying that our opinions are equal to the opinions of professional dancers, singers, choreographers, and producers. While we might have an informed opinion, our response certainly does not depend on one. Thus we can easily be fooled into confusing opinion (which everyone has) with informed knowledge (which few have without ongoing practice and study).

Because of this socialization, many of us unwittingly bring the expectation for opinion-sharing into the academic classroom. However, in academia, opinion is the weakest form of intellectual engagement. When our comprehension is low and critical thinking skills underdeveloped, expressing our opinion is
the easiest response. All of us hold opinions on a topic before we enter a course (as our astronomy student did), and these opinions don't require us to understand the issues or engage with the course readings at all. Therefore, expressing our opinions simply rehearses what we already think and doesn't require us to expand, question, or go beneath our ideas. If we aren't interested in reading what we have been assigned, or do not understand what we have read, the easiest thing to do is to point to a passage in the text and give a personal opinion about it (e.g., "I loved it when the author said that men dominate because it reminded me of an experience I had."), or use it to reject the reading out of hand (e.g., "The author said White people have privilege. I totally disagree with that because I know someone who didn't get a job because he's White!").

When we make academic claims based on anecdotal evidence with regard to the concepts studied--for example claiming, "Now there is reverse racism" --we are in effect expressing an opinion that is not supported by scholarly evidence. We would not use opinion in astronomy class and believe it unlikely that a student arguing that she or he disagrees with Stephen Hawking on a matter of astronomy would have her or his position taken seriously, much less feel free to make such a claim to begin with. Yet in the social justice classroom, scholars such as Peggy McIntosh, Michel Foucault, and Beverly Tatum are regularly "disagreed with" well before comprehension of their work is mastered. Consider how our astronomy student's understanding of planets--as well as his understanding of science as an ever-evolving field--could deepen if he was able to engage with current theories about what constitutes a planet. Unfortunately, our hypothetical student's attachment to his previously held beliefs precludes this possibility.

Because of these tendencies, professors who teach from a critical social justice stance sometimes "shut down" opinion-sharing. This curtailment of the sharing of opinions in class is often perceived as breaking a social rule: "I have the right to my opinion and denying me that right is unfair." Of course we have a right to our opinions. But our academic goals are not to simply express our pre-existing opinions; our goals are to engage with scholarly evidence and develop the theoretical tools with which to gain a more complex understanding of social phenomena. Yet let us be clear--we do want students to offer opinions in order to reflect on and examine them; opening one's opinions to examination is not the same as simply expressing them.

In order to move beyond the level of previously-held opinions, practice the following:

* Reflect on your reasons for pursuing higher education. Many students would say they are going to university or college in order to secure a good career. However, your longevity and success in that career will depend on your critical thinking skills and the depth and breadth of your general knowledge base. How might allowing your worldview to be stretched and challenged actually serve your future career interests?

* Recognize that you do not have to agree with concepts under study in order to learn from them. Let go of the idea that you must agree with a concept you are studying in order for it to be valid or "worth learning."

* Practice posing open-ended questions rather than closed questions that invite yes/ no responses or debate. Closed questions often begin with "Should" or "Do you agree" (e.g., "Should schools ban soda machines?" or "Do you agree that opportunity is not equal?"). The limitation of these questions is that the debate format does not leave much room for examining grey areas or grappling with complexities. Closed questions can also be answered with an easy yes or no which prevents a nuanced engagement with complex issues.
* Practice developing quality questions. For example, using John Taylor Gatto's "Seven Lesson Schoolteacher" (1992), strong questions could include: "Consider Gatto's argument that all teachers teach the 7 lessons. On a continuum from 'Yes absolutely' on one end, to 'No absolutely not' on the other, position yourself in relation to his argument. Explain why you have positioned yourself there." Use phrases such as, "Under what conditions ___" and "To what extent ___"; For example, "Under what conditions might we avoid teaching Gatto's lessons?" "To what extent does the school curriculum influence teacher autonomy?" Use the course readings to support your position. Questions connected to texts should require familiarity with the text to answer. For example, "Identify two of Gatto's 7 lessons and find examples you have seen in schools." If someone can respond to the question without ever having read the text, it is not a strong question. Questions may also ask people to re-imagine. For example, "Using the readings, design the ideal classroom. Describe the guidelines for student engagement in this ideal classroom. How would the curriculum and pedagogical activities be organized? How would you assess your goals?"

Guideline 3: Let go of Anecdotal Evidence and Instead Examine Patterns

Anecdotal evidence is evidence drawn from hearsay or only personal experience, and thus anecdotal evidence is superficial, limited to interpretation, and not generalizable. For example, many of us have heard something similar to, "My cousin tried to get a job, but they hired an unqualified Black guy instead because they had to fill a quota." Because mainstream education and media seldom teach us how social inequality works, most of the evidence we rely on to understand issues of social justice is anecdotal. But the goals of college and university classes are to expand one's ability to make sense of everyday events, issues, and incidences. In other words, to offer new and more complex sense-making systems. One of the more important academic skills we can develop is the ability to apply a new sense-making framework to something we currently make sense of using another framework.

To illustrate this concept of frameworks, imagine that you have pain in your leg and go to your doctor. Your doctor would likely examine your leg, feel the bones and muscles, and perhaps take X-rays to identify the source of the pain. If, however, you went to an alternative (from a Western perspective) medical practitioner, such as a doctor of Traditional Chinese Medicine (TCM), she might have a completely different way of examining your body and identifying the source of the pain. She may begin by looking at your tongue and examining other parts of your body. A chiropractor might not examine your leg at all, but instead begin work on your spine.

If we are taking a course studying how humans understand the body and conceptualize healing, then we are less interested in which practitioner is "right" and which is "wrong" in their approach to identifying the source of your pain. We are more interested in the various frameworks each practitioner uses, the scholarly community that informs the ideas that practitioner draws on, and what each framework offers us in terms of understanding how the body works and how humans conceptualize illness and healing. Just as the TCM doctor offers a new way of understanding how your body works, the critical social justice framework offers us a new way of understanding how society works.

Another popular approach many of us take when we encounter a new and unfamiliar framework, is to focus on one or two exceptions in order to disprove the framework under study. For example, when reading scholarship describing racism as structural, we may cite sensational examples such as Barack Obama as proof that "anyone can make it." We may also use personal stories to "prove" that structural oppression doesn't exist (or has now "reversed" direction), such as in the story above about the cousin who didn't get a job and believes this is because the company had to fill a racial quota.
Although it is a common White myth that people of Color must be (unfairly) hired over Whites, it is false and problematic for at least three reasons. First, it's misinformed because hiring quotas are actually illegal. Affirmative Action in the United States or Employment Equity in Canada are not hiring requirements, but goal systems for the hiring of qualified people who are underrepresented in a given field. Second, all of the evidence demonstrates that people of Color are discriminated against in hiring, not preferred (Alexander, 2010; Bertrand & Mullainathan, 2004; Dechief & Oreopoulos, 2012). Third, the story above rests on an embedded racist assumption that the only reason a person of Color could have been hired over the cousin is because of a quota and not because the person of Color was in fact more qualified, or equally qualified but brought a needed perspective that the cousin did not.

Focusing on exceptions or unanalyzed personal experiences prevents us from seeing the overall, societal patterns. While there are always exceptions to the rule, exceptions also illustrate the rule. Yes, people from oppressed groups occasionally rise to the top in dominant society. But the historical, measurable, and predictable evidence is that this is an atypical occurrence. If we focus exclusively on those exceptional occurrences, we miss the larger structural patterns. Focusing on the exceptions also precludes a more nuanced analysis of the role these exceptions play in the system overall.

The following questions offer a constructive way to engage with the course content and support Guideline 3:

* How can using a critical framework expand my understanding of this phenomena? For example, let's say you are White and have spent time abroad. You have enjoyed the food and cultures of places such as China, Mexico, or Morocco, but have also felt discriminated against (ignored, stereotyped, made fun of) because you are White and from the US or Canada. Why, you might wonder, aren't the locals more open to you when you are being so open to them--maybe even learning a bit of their language? You offer this anecdote as an example that illustrates that everyone is racist in some ways. Now imagine that you are grappling with a new framework to make sense of your experience. You are studying key concepts such as whiteness, globalization, and hegemony. How can using this framework help you contextualize your experience within larger macro-dynamics?

* Am I able to identify the larger group patterns at play in any individual situation? For example, if my best friend lives with a disability, I may assume that I am outside of ableism because I am open to this friendship when others are not. Yet rather than make me exempt from ableism, how can my friendship provide me with a view into the barriers faced by persons with disabilities? How can considering overall patterns help me recognize how my friendship is situated in relation to broader social dynamics--dynamics that intentions and individual practices alone do not overcome?

* Do I recognize that when I claim that my friend's disability is not an issue in our friendship, that I am sharing my own limited perspective, because my experiences are interpreted from my positionality as someone who is considered able-bodied? What might the risks be for my friend to disagree with me or try to give me feedback on unaware ableist assumptions I may be making? Do I have the skills to respond to this feedback without defensiveness and denial? Using another example, we often hear heterosexual students make claims such as, "There was one gay guy in our school and no one had an issue with him." Yet that "one gay guy" likely has a very different memory of school. Indeed, when we have students in our classes from minoritized groups, they invariably tell us of the misery of high school and all of the unconcious attitudes and behaviors from the dominant group that they had to endure. Our anecdotes are not universal, they are from a particular perspective; they will necessarily be filtered through our blind spots and thus are not sufficient evidence.
Guideline 4: Use Your Reactions as Entry Points for Gaining Deeper Self-Knowledge

Because social justice courses directly address emotionally and politically charged issues, they can be upsetting. For many of us, this is the first time we have experienced a sustained examination of inequality—especially where we are in dominant groups. Further, much of what is presented is counter to everything we have previously been taught. In addition, these courses typically ask us to connect ourselves personally to the issues under study, triggering patterns of resistance such as those previously discussed. For those of us who have experienced inequality in key dimensions of our lives, it can be painful to see the explicit resistance and hostility of classmates.

Although the frameworks used in these courses do not claim that people in dominant groups are "bad," many of us hear it that way because our current sense-making framework says that participation in inequality is something that only bad people do. Until we have a critical social justice framework—which requires a whole new paradigm of sense making—we often find it difficult to remain open, especially if we are a member of a dominant group under study. Defensiveness, cognitive dissonance, and even feelings of guilt, shame, and grief are not uncommon. In some ways, these kinds of feelings indicate movement and change, and although unpleasant, they are not necessarily problematic. The key to whether these feelings play a constructive or destructive role lies in what we do with them. We can, of course, use them as "proof" that the class content and approach is "wrong" and reject all that we are being taught. But there is no growth for us in this reaction. Rather than allow these emotions to block our growth, we can use them as entry points into greater self-knowledge, and content knowledge.

Conversely, where we belong to minoritized groups, these courses can surface emotions for different reasons. Feelings such as anger, frustration, shame, grief, and that we are under a spotlight are common and can also get in the way of our academic development. However, the analysis, evidence, and conceptual language offered by social justice education can provide the tools with which to challenge the relations of oppression that lead to these feelings. Indeed, the evidence and analysis presented should reveal that the challenges you have faced are not due to your own individual short-comings but are in large-part the product of socially organized, structural barriers. As such, these barriers can be identified and acted against. In this way, rather than increase a sense of hopelessness and immobilization, courses such as this have the potential to empower.

Returning to our astronomy student, we can see that upon receiving information that challenged his worldview, he was unable to use his emotional reactions constructively. Instead, he categorically rejected the information, ending with a somewhat nonsensical claim that Pluto was still a planet, even if it was shaped like a banana. This is the equivalent to claiming that "I treat people the same regardless of whether they are 'red, yellow, green, purple, polka-dotted, or zebra-striped.'" Simplistic platitudes often surface when we are faced with evidence that fundamentally challenges our worldviews. For example, the evidence that racism not only exists, but is systemic and implicates everyone is a difficult idea for many of us. But popular platitudes such as "I don't care if you're purple" are problematic for at least two reasons: First, colorblindness is not actually possible—we do in fact see race and it does have social meaning and consequences; second, people do not come in these colors so claims about green, purple and polka-dotted people renders race ridiculous and trivializes the realities of racism.

Social justice content can trigger strong reactions, but these reactions can be constructive if we use them as entry points to deeper self-awareness, rather than as exit points from further engagement.
Practice the following approaches to the course content in support of Guideline 4:

* How does considering the course content or an author's analysis challenge or expand the way I see the world?

* How have I been shaped by the issues the author is addressing? For example, if the author is talking about the experiences of the poor and I was raised middle class, what does their perspective help me see about what it means to have been raised middle class?

* What about my life in relation to my race/class/gender might make it difficult for me to see or validate this new perspective?

* What do my reactions reveal about what I perceive is at risk were I to accept this information?

* If I were to accept this information as valid, what might be ethically required of me?

Guideline 5: Recognize how Your Social Position Informs Your Reactions to Your Instructor and Those Whose Work you Study in the Course

Positionality is the concept that our perspectives are based on our positions within society. Positionality recognizes that where you stand in relation to others in society shapes what you can see and understand. For example, if I am a considered an able-bodied person, my position in a society that devalues people with disabilities limits my understanding of the barriers people with disabilities face. I simply won't "see" these barriers, in large part because I don't have to--society is structured to accommodate the way I use my body.

Guideline 5 addresses the perception that the content of the class is subjective, value-based, and political, while the content of mainstream courses is objective, value-neutral, and unpartisan. We discussed this perception under Guideline 3 as it relates to common views on the social sciences. Here, we want to consider this perception using the lens of positionality, and as it relates to the instructors of these courses. Because instructors of critical social justice content are more likely to name their positionality and encourage students to do the same, they are often seen as more biased. Mainstream courses rarely if ever name the positionality of the texts they study (for example, the idea that Columbus discovered America is from the colonizer's perspective, but certainly not from the perspective of Indigenous peoples). Unfortunately, because acknowledging one’s positionality is a rare occurrence in mainstream courses, doing so reinforces students’ perceptions of mainstream courses as objective and critical social justice courses as subjective. Yet all knowledge is taught from a particular perspective; the power of dominant knowledge depends in large part on its presentation as neutral and universal (Kincheloe, 2008).

In order to understand the concept of knowledge as never purely objective, neutral, and outside of human interests, it is important to distinguish between discoverable "laws" of the natural world (such as the law of gravity), and "knowledge," which is socially constructed. By socially constructed, we mean that all knowledge understood by humans is framed by the ideologies, language, beliefs, and customs of human societies. Even the field of science is subjective (the study of which is known as the sociology of scientific knowledge). For example, consider scientific research and how and when it is conducted. Which subjects are funded and which are not (the moon's atmosphere, nuclear power, atmospheric pollution, or stem cells)? Who finances various types of research (private corporations, non-profits, or the government)? Who is invested in the results of the research (for-profit pharmaceutical companies, the military, or non-profit organizations)? How do these investments drive
what is studied and how? How will the research findings be used? Who has access to the benefits of the research? As you can see, these are not neutral questions—they are political, and they frame the way in which knowledge is created, advanced, and circulated. Because of this, knowledge is never value-neutral.

To illustrate the concept of knowledge as socially constructed and thus never outside of human values and subjectivity, consider an example of a tree -- a seemingly neutral object whose existence is simply a physical fact that can be observed. Yet notice that how we see the tree is connected to our meaning-making frameworks (and thus is not neutral at all). First, consider our perceptions of its size. A tree that looks big to someone who grew up on the East Coast might not look big to someone who grew up on the West Coast.

Next, consider our perceptions of its meaning or purpose; these will be shaped by our perspectives and interests. For example, an environmentalist might see a limited resource. A member of the Coast Salish nation might see a sacred symbol of life. A logger or a farmer might see employment. A scientist might see a specimen to be studied. Further, while it may appear that the logger and the farmer have shared interests, in fact their interests are opposite; the logger would see employment only if the tree is cut down, while the farmer would see employment only if the tree is not cut down. Now let's add the layer of political power. Who owns the tree? Who has "the right" to cut it down and profit from it? Would the logger, tribal member, environmentalist and scientist all agree on this matter of ownership? Whose interests are served by the concept that nature can be owned at all? And who's in the position to impose this concept on others? Who takes the idea of ownership for granted, and who doesn't? What kind of resources, institutions, and larger groups are behind each of these individuals and how do they influence whose interests will prevail?

Finally, how are these interests informed by the specific time and place in which they occur? What is considered "valid" scientific research today (from a Western perspective) is not the same as what was considered valid in the past. So while a tree may be an objective, factual, and "real" object that exists independently of humans, our understanding of—and thus our interaction with it—cannot be separated from the cultural context we are currently embedded in. In other words, humans can only make meaning of the tree from the cultural frameworks into which they have been socialized. And so it goes for history, physics, and all fields studied in academia. Knowledge is always culturally informed and thus cannot be value-neutral.

Many educators use the metaphor of a fish in water to capture the all-encompassing dimensions of culture. A fish is born into water and so simply experiences the water as one with itself; a fish has no way of knowing that it is actually separate from the water. And although the fish is separate, it still cannot survive without water. In the same way that a fish cannot live without water, we cannot make sense of the world without the meaning-making system that our culture provides. Yet this system is hard to see because we have always been "swimming" within it; we just take for granted that what we see is real, rather than a particular perception of reality. For these reasons, social justice educators name our positionality (the currents and waters we swim in) in order to make the socially constructed nature of knowledge visible and to challenge the claim that any knowledge is neutral. Yet ironically, that naming is often used to reinforce the idea that social justice content and those who present it are driven by personal agendas and special interests, and thus less legitimate.

Because instructors who teach critical social justice courses often belong to minoritized groups, and because they name these groups, they can be perceived as having a personal bias; they are viewed as if they only teach these courses because they are "minorities" and have an "axe to grind." Because
the instructors are seen as simply pushing their personal agendas, students often feel more comfortable to explicitly disagree with the curriculum and pedagogy. Indeed, this challenge further illustrates how unimaginable our example of the astronomy student is. The instructor in our scenario is most likely a White male, as is the vast majority of higher education faculty (Chronicle of Higher Education, 2009). White males overall hold more social authority and are seen as more objective, and thus students are less likely to argue with them (Rudman & Kiliansky, 2000). That, along with the presumed neutral content of a subject like astronomy, means students respond to this instructor and the course as though they were value-neutral. In contrast, because the positionality of a woman of Colour professor, teaching a social justice course is named, both she and the course are presumed to be value-driven.

Ultimately, one or two courses in our academic career are not enough to "brainwash" us or deny us the ability to think freely. In fact, the opposite is true: The more depth, perspective, and complexity we can bring to bear on how we and others view and understand the world, the clearer, more nuanced, and ultimately freer our thinking can become. Returning to our astronomy student, it isn't necessary for his positionality to align with the instructors in order for him to consider the framework the instructor is using.

The following practices support Guideline 5:

* Identify your social positionality and stay attentive to how it informs your response to the course context (e.g., your race, class, gender). What "blind spots" might you have as a result of your social groups? What are the things you can and can't see based on the social positions you hold or don't hold?

* Recognize the perspective embedded in all texts (such as textbooks, newspaper articles, and TV news), especially those that don't explicitly name them. Are the ideas presented as if they have no perspective and apply universally to all people, regardless of social positionality? If so, practice seeking out and considering alternative perspectives informed by a range of positionalities.

* As you study the content of your course, it is important for you to continuously consider the interplay between your positionality and that of your instructor. If the instructor represents perspectives from key minoritized groups (women, People of Color, persons with disabilities, gay, lesbian, or trans people), you could welcome the opportunity to hear perspectives seldom represented in mainstream education. Support the course for the opportunity it offers, rather than undermining it because the concepts are unfamilar, uncomfortable, or difficult.

**Grading**

Grading in a course whose primary goal is to challenge social stratification is not without irony. Activist and scholar Audre Lorde (1984) captures this irony when she states that, "The master's tools will never dismantle the master's house." By this she means that in using the tools of the system we are more likely to uphold that system than to challenge it. As instructors, we recognize that by grading, we are upholding an institution that ranks students hierarchically, and such hierarchies are what we seek to challenge. Still, many of us choose to work within systems, despite their constraints, in order to challenge them. The traditional grading system is one of those constraints we must work with.

Mainstream schooling places a tremendous emphasis on grades, and the prevalence of high-stakes testing has only intensified this emphasis. Grades convey powerful ideas about our presumed intellectual abilities and these ideas influence what education we will have access to (through tracking
into "gifted" or "special" programs and ability grouping). We are placed into academic tracks as early as 1\textsuperscript{st} grade and these tracks have very real consequences for the kinds of careers we will have access to later in life (Anyon, 1981; Oakes, 1985). Thus an understandable but regrettable outcome of tracking based on grades in K--12 schooling is that we may care more about the grades we receive than about the knowledge we gain.

The focus on grades often shapes our very identities and sense of self-worth, further complicating the dynamics of grading. This identity is often reinforced outside of school as we earn praise or punishment from our families based on our grades. While some students who have not been successful within this system come to feel fortunate just to earn a C, students who have generally been successful by the measure of grades often feel entitled to As. It is not uncommon for these students to claim, "I am an A student!" Students with such an identity may feel frustrated--even personally slighted--when receiving grades that challenge this identity.

Although we as instructors are aware of the complexities and contradictions of grading, we are also deeply invested in student comprehension of the course concepts. The grading system is one of the primary tools we must use to both measure and communicate our assessment of this comprehension. We encourage students to keep the following in mind when considering the dynamics of grading:

In Order to Grade Comprehension, Instructors Must see Demonstration of Comprehension

Whether in assignments or in class participation and discussion, we must demonstrate understanding. Comprehension can be demonstrated in written, verbal, and active forms (such as presentations and projects).

Assessing our comprehension verbally is generally done through class discussions and question and answer sessions. However, assessing comprehension verbally can be challenging for instructors if we don't speak up in class. For example, how many times have you witnessed your instructor posing a question to the whole class only to be met by silence? Looking out into a room full of students, most of whom are not responding, instructors are left to assume that these students cannot answer the question. Students sometimes say later that they did not respond because the answer was "so obvious" that it did not require a response. Yet how can our instructors know that we understand if we do not respond when questions are posed in class, even if the answers to those questions seem obvious?

Another common explanation for silence is that someone has already said what we were thinking. Yet from an instructor's perspective, it is fine to repeat (or better yet, to build on) an idea that another student has already stated. No two people will say it exactly alike, and it is important to practice articulating these concepts in your own words in order to develop your critical social justice literacy. Any statement can be expanded, deepened, or in other ways supported. At the minimum, if students repeat what others have said, instructors can gain a sense of how many students are thinking similarly, or struggling with understanding key ideas. This is valuable information for instructors in terms of assessing the collective understanding of the group as well as the comprehension levels of individual students. For these reasons, we encourage students to give some kind of verbal response when asked questions in class, even if it is to say that one does not know, is not sure, or only has a partial answer.

In regard to demonstrating understanding in written work, we evaluate this work by assessing how well written, organized, and clear it is, and how well the submitted work meets the goals of the
assignment. The work should (at minimum) be proofread for errors, use academic language, avoid colloquialisms, conform to a standard style of citation, use inclusive language, and stay within the guidelines of the assignment description. These are all baseline indicators of the degree of student achievement in a written assignment. Perceptive integration of course readings and lectures in a student's own words, relevant use of examples, and insightful connections can transform an adequately written assignment into an excellent (or "A") assignment. These criteria are usually communicated to students in either the course syllabus or assignment description. Thus in order to most accurately grade comprehension we must see evidence of comprehension in both verbal participation and written work.

Effort is Not the Same as Understanding

When students are worried about their grades or are making a case for the grade they believe they should receive, they often claim that they "worked really hard." These students feel that they should be rewarded for that hard work with an A. The reason this argument rarely makes much headway with instructors is because we are grading student demonstration of understanding of content, not the perceived degree of effort expended to achieve it.

Consider this analogy: I am taking swimming lessons. My goal is to compete in an upcoming match. I see myself as putting in a lot of effort by making the time to show up for practice, following my coach's instructions, and swimming the number of laps I am assigned. My coach, however, expects that I will attend lessons and complete my practice sessions; thus, s/he is focused on other things such as how I hold my body while swimming, my breathing pattern, hip and shoulder movements, smoothness of stroke, and speed. In the end, my coach will determine whether I am ready to compete. This determination will be made based on my demonstrated ability that I am ready, regardless of the degree of effort it takes me to reach that point, and certainly not on the mere fact that I showed up for my lessons and got in the pool.

In a similar way, we are grading students on the degree of demonstrated understanding of studied concepts and not on perceptions of effort, especially because what we as instructors see as effort and what a student sees as effort are often not the same. For some students, showing up to class, listening, and handing in assignments are viewed as evidence of a level of effort that should we rewarded with an A. For instructors, this level of effort qualifies as the minimum expectation for all students. Still, we are not grading on how "hard" a student works but on the outcome of that work.

The following are common (yet not relevant) student rationales for why they should get a grade higher than what was assessed:

* "I worked really hard."

* "I am an A student."

* "I came to all the classes."

* "I listened."

* "I spent hours doing the readings."

* "I talked in class discussions."
* "I handed in all my assignments."

* "I have never thought about these things before."

* "I'm really interested in these issues."

* "I've had other courses like this one so I already know all this."

* "I have to get a good grade or I will have to drop out."

* "I have been going through a lot of personal issues this semester."

* "I learned so much in this class."

Student rationales such as these are familiar to many instructors, and we understand that they are driven by genuine anxieties about grades. However, we urge our students to challenge this anxiety because it thwarts the process of authentic learning.

A final note on grading: Students often believe that the reason they received a poor grade was because the instructor didn't like something they said in class, or because they disagreed with the instructor. Every institution has an appeal process for students who feel they have not been graded fairly by an instructor. This makes it very difficult to lower a student's grade just because of something they said. While classroom assessments have some degree of subjectivity, an instructor has to be able to account for a grade they gave in terms of guidelines for the assignment, as well as in terms that are clear to a mediating third party. Because of this accountability, an instructor's grading criteria are usually clearly stated in the syllabus or on assignments.

**Conclusion**

Many college and university courses provide opportunities that are rare in any other dimension of life: critical engagement with new ideas; the opportunity to hear and consider multiple perspectives; the expansion of our capacity to understand and talk about complex social issues; guidance in the examination of our identities, socialization, and meaning-making frameworks; and the tools to work towards a more just society. Unfortunately, a fixation on grades minimizes these opportunities. We find that students who let go of their attachment to grades and put their energy into sincerely grappling with the content tend to do well. Worrying about grades detracts from the ability to focus on content and can become a kind of self-fulfilling prophecy. The following reflection questions may be useful in lessening this attachment:

* Am I willing to consider that I may not be qualified to assess my performance in a course, especially one in which new concepts are being introduced?

* Do I expect an A in all of my courses, and if so, why? Is it because I have always received As, or is it because I have demonstrated mastery of course concepts?

* When I ask my instructor, "How am I doing?" am I asking them to provide me with valuable feedback about what my performance conveys about my comprehension and how it might be improved, or am I asking them to tell me what grade I will receive?

We sincerely hope that our students find our courses valuable in terms of the knowledge and insight gained. It has been our experience that this is most likely achieved when students focus more on
mastery of content than on the final grade.

General Reflection Questions to Maximize Learning of Social Justice Content

1. If I wasn't worried about my grade, how would my engagement in this course shift?

   • 2. Which of the various guidelines detailed in this essay are the most challenging to me, and why? How can I meet these challenges?

   • 3. What degree of responsibility am I willing to take for getting the most out of this course (e.g., coming to class prepared and having completed the reading, engaging in large-group discussions, not dominating discussions, asking questions for clarity, speaking respectfully in class, and using academic rather than colloquial discourse)?

   • 4. What degree of responsibility am I willing to take to support my peers in getting the most from this course (e.g., engaging in discussions, not dominating discussions, listening respectfully when others speak and building on their ideas, taking the small-group discussions seriously, coming to class prepared and having completed the reading)?

   • 5. Many students think about higher education solely as a stepping-stone to employment, and thus the only knowledge that is worthwhile is knowledge they see as directly connected to getting a job. We ask you to consider what other kinds of skills higher education can provide, and how these skills are also connected to future employment. If you think beyond a strictly vocational approach, what skills do citizens in a global democracy need? How are these skills also important to any future work you do?

Vocabulary List

Anecdotal Evidence: Evidence that is based on personal stories and single, isolated or non-representative examples--e.g. "I know a guy that and that proves that"

Cisgender: Persons whose gender identity matches their biologically defined sex; their identity aligns with the sex category assigned to them at birth (male or female).

Dominant Group: The group at the top of the social hierarchy. In any relationship between groups that define each other (men/women, able-bodied/person with disability), the dominant group is the group that is valued more highly (avoid referring to the minoritized group as "non" dominant group, e.g. "non-White"). Dominant groups set the norms by which the minoritized groups are judged. Dominant groups have greater access to the resources of society and benefit from the existence of the inequality.

Framework: A fundamental theory, paradigm, or thought pattern through which we make meaning of a given phenomena; a particular way of seeing and knowing.

Globalization: The process by which corporations and other large enterprises exert international influence. In exerting this influence, they channel resources away from local communities and usually erode local industry, culture, environment, and identity.

Hegemony: The imposition of dominant group ideology onto everyone in society. Hegemony makes it difficult to escape or to resist "believing in" dominant ideology, thus social control is achieved through conditioning rather than physical force or intimidation.
Ideology: The big, shared ideas of a society that are reinforced throughout all of the institutions and thus are very hard to question or avoid believing. These ideas include the stories, myths, representations, explanations, definitions, and rationalizations that are used to justify inequality in the society. Individualism and Meritocracy are examples of ideology.

Intersectionality: The term used to refer to the reality that we occupy multiple social groups. Some of these groups are dominant in society and some are not. For example, one may be minoritized as a woman but privileged as White; minoritized as a person with a disability but privileged as a man; and so on. Thus, while all persons with disabilities suffer under ableism, they will have a different experience interacting with dominant society based on whether they are seen as a man or woman, White or a person of Color--e.g. a person of Color with a disability will also be dealing with racism, while a White person with a disability will not.

Mainstream Society: The dominant framework for making sense of society that is circulated across all institutions and that all members of society are exposed to. The dominant framework is circulated via mechanisms such as films, TV shows, advertisements, public school curriculum, holidays and the stories, myths, representations, explanations, definitions, theories, and historical perspectives that are used to rationalize and hide inequality.

Minoritized Group: A social group that is devalued in society and given less access to resources. This devaluing encompasses how the group is represented, what degree of access to resources it is granted, and how the unequal access is rationalized. Traditionally, a group in this position has been referred to as the minority group. However, this language has been replaced with the term minoritized in order to capture the active dynamics that create the lower status in society, and also to signal that a group's status is not necessarily related to how many or few of them there are in the population at large (for example the elite wealthy, while a numerical minority, hold institutional power and thus are the dominant group in terms of social class.)

Objective: The perception that some things are factual and not informed by social or cultural interpretations; a universal truth outside of any particular framework. Thus, a person or position that is seen as objective is seen as having the ability to transcend social or cultural frameworks and analyze without bias or self-interest.

Peer Review: The evaluation of scholarly work--often done anonymously to ensure fairness--by peers with expertise in the same field in order to maintain or enhance the excellence of the work in that field and to advance knowledge.

Platitude: a trite, simplistic, and meaningless statement, often presented as if it were significant and original, e.g. "I didn't own slaves" or "People just need to take personal responsibility."

Positionality: The recognition that where you stand in relation to others in society shapes what you can see and understand about yourself and others.

Social Stratification: The concept that social groups are relationally positioned and ranked into a hierarchy of unequal value (e.g. people without disabilities are seen as more valuable than people with disabilities). This ranking is used to justify the unequal distribution of resources among social groups.

Subjective: An individual's personal perspective, feelings, beliefs, interests, or experience, as opposed to those made from a source considered independent, unbiased, universal, and objective. A
person or position that is considered subjective is assumed to be biased and/or self-interested, while a person considered to be objective is seen as unbiased and outside of any cultural influences.

Transgender: A person whose gender identity does not match the sex category assigned at birth (male or female); they may feel themselves to be neither like a woman or a man, that they are a combination of both genders, or that their gender is opposite to their sex. A transgender person can appear to others to partially, occasionally, or entirely perform their gender in a way that does not conform to traditional gender roles.

Whiteness: The academic term used to capture the all-encompassing dimensions of White privilege, dominance, and assumed superiority in society. These dimensions include: ideological, institutional, social, cultural, historical, political, and interpersonal.

References


DiAngelo, R. & Sensoy, o. (2010). OK! I get it! Now tell me how to do it: Why we just can't tell you how to do critical multicultural education. Multicultural Perspectives, 12(2), 7-12.


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## Evidence-based Inclusivity Interventions

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<thead>
<tr>
<th>Goal</th>
<th>In Class Activities</th>
<th>How does this work?</th>
<th>Based on the research of</th>
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<tr>
<td><strong>Decrease bias against ethnic minorities and women interested in STEM</strong></td>
<td>Discuss research by a woman or ethnic minority. Show a picture of this researcher.</td>
<td>Showing these pictures of accomplished ethnic minorities changes reduces individuals' implicit or unconscious bias against these groups.</td>
<td>Dasgupta &amp; Greewald (2001)</td>
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<td>Another possibility is to show a diverse lab group that worked on a question.</td>
<td>see above</td>
<td>see above</td>
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<td>When having students work together in a group to solve a problem, show a picture of a diverse group of scientists working together.</td>
<td>see above</td>
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<td></td>
<td>When showing research by a female scientist, describe her as ambitious, competent, go-getter and not &quot;nice&quot;</td>
<td>Women are typically described as &quot;nice&quot; and not &quot;ambitious&quot; which makes them appear less competent.</td>
<td>Madera, Hebl, &amp; Martin (2009)</td>
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<td><strong>Reduce Stereotype Threat</strong></td>
<td>When students do a better job on the clicker question the second time, point out that learning and knowledge is malleable. Use their improvement as an example.</td>
<td>This shows students that intelligence is malleable and can improve, which reduces stereotype threat in African Americans.</td>
<td>Aronson, Fried, &amp; Good (2002)</td>
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<td>At the beginning of a class, tell students you are interested in hearing about them. Then have the students write about something that is important to them (e.g. sports, friends, knitting). Alternatively, when giving an example, have students write why this example may be important some aspect of their life.</td>
<td>Having students write about values (unrelated to the topic of the class) or &quot;self-affirm&quot; reduces stereotype threat in women and ethnic minorities.</td>
<td>Miyake, Kost-Smith, Finkelstein, Pollock, Cohen, &amp; Ito (2010)</td>
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<td><strong>Increase a sense of belonging in science/ a more inclusive environment</strong></td>
<td>When having students work in a group to solve a problem or answer a question, emphasize that science is collaborative. This type of group work is typical for science.</td>
<td>When science is presented as collaborative/communal, women are more likely to be interested in science. Women see science as very individualistic, and therefore at odds with their goals of working well with, and helping others.</td>
<td>Diekman et al. (2011)</td>
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<td>Share some fun facts about yourself, or alternatively some fun facts/hobbies about a scientist who conducted the research you are discussing.</td>
<td>Women who see scientist has people (male or female) as someone they can identify with, and who do not fit the &quot;scientist nerd stereotype&quot; feel more encouraged to pursue science majors.</td>
<td>Cheryan et al. (2011)</td>
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<td>Dasgupta &amp; Greewald (2001)</td>
<td>Showing pictures of accomplished ethnic minorities changes reduces individuals' implicit or unconscious bias against these groups</td>
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<td>Stout, Dasgupta, Hunsinger, and McManus (2011)</td>
<td>When female students see female scientist, they have more positive attitudes and feelings towards science. They also feel a sense of belonging in science.</td>
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<td>Cheryan et al. (2011)</td>
<td>When female students see a female scientist who they can identify with, or who does not fit the stereotypical scientist &quot;nerd&quot; stereotype, they feel more of a sense of belonging in math and sense</td>
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<td>Diekman et al. (2011)</td>
<td>Women are discouraged to pursuing a career in science because they worry science is not communal enough (Concerned with working well with and helping others). When science as presented as collaborative/more communal women are more interested in science.</td>
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<td>Murphy, Steele, &amp; Gross (2002)</td>
<td>Also, seeing even number of women and men makes women feel less threatened, and a stronger sense of belonging in a science environment (as oppose to majority males).</td>
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<td>Aronson, Fried, &amp; Good (2002)</td>
<td>Believing that learning is malleable reduces stereotype threat in African Americans</td>
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<td>Madera, Hebl, &amp; Martin (2009)</td>
<td>Letter writers tend to describe women as &quot;nice&quot; and not &quot;ambitious,&quot; which makes them appear less competent.</td>
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<td>Miyake, Kost-Smith, Finkelstein, Pollock, Cohen, &amp; Ito (2010)</td>
<td>Self-affirming, or writing about one’s important personal values (e.g. friendship or learning) significantly reduces the gender gap on exam grades in an introductory physics class in comparison to a control condition.</td>
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*This resource was created by. Evava Pietri, a former postdoctoral scholar in the Yale Center for Scientific Teaching.

**Resource Article with Classroom Strategies:**
INTRODUCTION

A CALL TO ACTION AND SELF-REFLECTION FOR WHITE TEACHERS IN DIVERSE CLASSROOMS

Julie G. Landsman and Chance W. Lewis

It is with great pleasure that we bring out a new, enlarged, and more encompassing edition of White Teachers/Diverse Classrooms. Over the past four years, since the first edition of this book was published, we have received positive feedback from teachers, professors, and community workers across the country. When we visited classrooms and conference halls they requested that we include chapters that expand on the cultures and issues of students covered in the text. Thus, we have added seven chapters that include suggestions for working with immigrant, Latino, Asian, and Native American students. While you cannot make generalizations about one single cultural group, there are some ideas and insights that can help us position ourselves in relation to cultures, communities, practices, and perceptions when we teach in our increasingly diverse classrooms. This new edition expands on specific ideas for students from minority backgrounds in addition to African American students who were the emphasis in the first edition. Unfortunately, the need for this information is as great today as it was four years ago. We hope you enjoy and can use the practical approaches in this second edition.

In retrospect, the title of Gloria Ladson-Billings’s chapter would have been most appropriate for the entire book: “‘Yes, But How Do We Do It?’”
There is plenty of research for public consumption (journal articles, policy briefs, and books) and some inaccessible jargon focused on the simple fact that students of color are not achieving at the same rates academically as their White classmates in public school systems across the United States. While this information is critical to know, to understand, and to be concerned about, there is a pressing need for practical and concrete ideas to help “turn the tide” academically for all students of color.

W. E. B. DuBois noted in his groundbreaking book *The Souls of Black Folk* that the problem of America is because of the color line. If this is the case, then we are deplorably behind in addressing issues of education for students of color, since DuBois identified this problem over a century ago. What makes us so reluctant to grapple with this issue? Some believe it is White people’s unwillingness to talk about racism, much less work on changing methods and curriculum. Others say the issue is already being addressed; we just have to give it more time. Some refuse to admit there is a problem at all, unless it resides solely in the Black, Latino, Asian, or Native American communities. We, the editors of this book, believe that much of the work must be done within the community and the racial group that does most of the educating: the White teachers, administrators, counselors, and social workers of our students. We also believe that real change requires deep reflecting, re-evaluating, and continually revisiting our actions and responses to students and their families.

We hope this book provides practical help in the day-to-day interactions that occur in our classrooms and hallways across the country: be it in college, teaching certification programs, or elementary and secondary schools. A plethora of research and testimony show the gap between test scores, grades, and college entrance rates of students of color and White students across the country. To further fuel the debate, the continuing emphasis on No Child Left Behind and Race to the Top legislation has caused considerable debate and discussion about standardized tests and what they actually indicate. All this is on the table at this moment in our educational history.

We, the editors, believe now is the time to have the uncomfortable talks, the continuing dialogue, the community work, and the self-reflection necessary to truly understand and change the situation for those students who are being failed by our public educational institutions and assessment standards. We felt this way four years ago and feel it with even more intensity today. Now is the time to look at practices and results of those practices with the blunt and critical lens of urgency and concern. We hope this book gives its readers pause. We also hope it energizes White teachers to look at their class-
rooms, reflect on their interactions with students of color and even their school building policies, and opt for true change and equity.

We continue to find that while all children of color experience difficulty and systematic racism in this country, African Americans have received more than a fair share of negative media attention. Parts of the original edition were devoted to their education and to what needs to be addressed to close the opportunity gap between African American students and all others. We have kept many of these chapters in this new edition. We also believe that Latino, Native American, and Asian students suffer from stereotyping, generalizations, and invisibility in our schools and colleges. This edition devotes new chapters to addressing their unique situations. For many of these students the suggestions, ideas, theories, and pedagogies include ways for teachers to reach all students, including those who are poor—be they White or of color. These new chapters include ideas for good teaching across the board. Thus, we hope the chapters in this edition address a general outlook regarding education as a whole and advocate for important changes for all students in the United States. Everyone can benefit from the truth of history, of knowledge, and of best practices. This book explores issues of race and culture in education, yet also presents theory and pedagogy for teachers in any environment.

We are also great believers in the power of stories to tell important truths and inscribe wisdom. Autobiography and memoirs are interspersed throughout this book to bring home to readers, on a visceral level, what we really mean when we speak of low expectations or invisibility within the curriculum. We need such stories to remind us of the human costs of our educational failures, our systematic indifference. Poems go even more deeply into the moment. We open and close this book with a poem to give the reader pause, to take time with that individual moment. We hope you take those moments. We hope you reflect on your own background and perceptions to locate the intersections you experience and create that can build bridges to your students.

Part One, entitled "Foundations of Our Work: Recognizing Power, Privilege, and Perspectives," includes Julie Landsman’s chapter entitled "Being White: Invisible Privileges of a New England Prep School Girl." In this opening chapter, Landsman calls on the work of Peggy McIntosh, Thandeke, W. E. B. DuBois, and Barack Obama (whom she referenced in the original edition four years ago) to clarify what it means to be White in this country and how this affects everything we do and how we live. She concludes with some suggestions for exploring this further in groups and in
communities. She emphasizes that this is ongoing, and that with each new group of students we start over, creating new “ways in” to cultures that are not our own.

In chapter 2, “Reflections on Education: A Two-Way Journey,” Kalia Yang gives us the benefit of her story. She describes her own experience coming to the United States and her invitation to learn from her White teachers. Aaron Rudolph Miller Hokanson co-writes the chapter and tells the story of his own White upbringing and how his education influenced the way he teaches today. The combination of these straightforward accounts poignantly demonstrates what our jobs and our work is all about.

Part Two, “Culturally Relevant Teachers: Foundations and Personal Engagement,” includes nine chapters by practitioners working in classrooms in both universities and public schools. In her chapter, “‘Yes, But How Do We Do It?’” Ladson-Billings breaks down what it means to teach students of color effectively and how to apply this to the classroom in a practical, doable manner. Ladson-Billings gives clear and passionate, well-researched and well-documented suggestions that work effectively for all students in our schools. Robert Simmons’s chapter 4, “The Empty Desk in the Third Row,” captures an experience he had with a student in his inner-city classroom. He calls us back to the basic impulses and passion we each feel about teaching and about children. H. Richard Milner explores the theories of multicultural education and best practices in chapter 5, “But Good Intentions Are Not Enough.” He gives us the vital overview we need to understand what has been happening in our schools and some ways to rethink how we look at teaching, history, and integration of subject matter into our curriculum for students of many cultures.

Paul Gorski asks us to go further than the “Heroes and Holidays” approach to multicultural education in chapter 6, “The Unintentional Undermining of Multicultural Education.” He challenges us to look at the system behind the system. How are we contributing to our students’ lack of achievement when we are silent in the face of racist curricula or generalizations by our colleagues? How do we change our work from education to educational activism? Gorski provides some important questions and suggested responses in his piece. Stephen Hancock’s chapter 7, “White Women’s Work,” addresses White women and their role in the school systems as they exist today. Hancock gives voices to White women teachers to explore what they believe are critical factors for their success in diverse classrooms. This chapter also explores avenues that encourage, empower, and enlighten White women to become more effective in diverse classrooms. In “When Truth and Joy Are
at Stake,” Julie Landsman uses her 30 years as a Minneapolis teacher to talk about how to build trust, not only among students each hour, but also between a White teacher and her students who are primarily Black. Practical activities, curriculum interweaving, and a firm structure provide the basis for her exploration into effective diverse classrooms.

In chapter 9, “Color Blindness, Unconscious Bias, and Student Achievement in Suburban Schools,” Justin Grinage observes what happens to and what is said about students of color in the high school where he teaches and reveals his own story of being the only African American teacher in a large suburban high school. It is an article full of the practical, down-to-earth reality of schools today. Justin insists that teachers explore their own perceptions and assumptions about race and culture and gives some suggestions for doing just that. In their chapter, “Tips for School Principals and Teachers,” Dorothy Garrison-Wade and Chance W. Lewis provide a research-based article stating ways administrators can address the achievement gap. This chapter, after hearing the voices of African American students, provides practical recommendations to administrators and other educational professionals working with African American students. In chapter 11, “How Can Service-Learning Increase the Academic Achievement of Urban African American Students?” Verna Cornelia Price gives us a passionate and well researched way of providing the important connection to students, their parents, and their communities. African American students need to experience a connection to their real world in their schools. Dr. Price helps us construct a vibrant and important method for doing this.

In Part Three, “Knowing Who Is in the Classroom: How White Teachers Can Ensure All Children Achieve,” Stephanie Flores-Koulish addresses the needs of students who may not fit any existing category. She uses her situation as a Columbian adoptee into a mixed-race family to explore the complexities of identity for students who are adopted or simply of mixed parentage. Flores-Koulish uses her story to illustrate how racial and cultural stereotypes are simplistic and harmful to students. Beverly Klug’s chapter, “Daring to Teach: Challenging the Western Narrative of American Indians in the Classroom,” gives us an overview of historical consequences of the way American Indians have been treated in this country. She explores how these consequences play out in the public school classrooms. She also describes some examples of cultural mismatches between White teachers and mainstream education and Native children. These cultural mismatches include expectations for behavior and academic work. Professor Joseph White, in an interview with Julie Landsman, provides a clear, thoughtful voice about
teaching young Black men. He calls on his years of experience and research into Black psychology to give the reader practical, compassionate, and vivid ideas for reaching young Black boys in our classrooms.

In their chapter entitled “Black/African Families: Coming of Age in Predominately White Communities,” Val Middleton, Kieran Coleman, and Chance Lewis explore the unique challenges of educating Black students in a predominately White setting. These authors uncover the experiences of Black students and their families in their attempt to adjust in this setting. “Understanding Korean American Students: Facts, Not Myth,” by Ok-Hee Lee, describes the history of Korean students, the stereotypes of Asian students, and ways to make these students feel visible in the classroom. She deconstructs the myth of the “ideal minority” and gives us a rich collection of ideas on how to think about students in new ways. Carolyn Holbrook, in her autobiographical piece entitled “Low Expectations Are the Worst Form of Racism” intimately explores the troubling experiences of a Black single mother and teacher raising her children in a system that rarely expects as much from her bright, eager sons and daughters as it does from their White friends. She shows us the life of one woman trying to advocate for her own and others’ children, the damage of generalization and unconscious racist actions and reactions, and some ways to avoid these pitfalls. In chapter 18, “How Educators Can Support the High Expectations for Education That Exist in the Latino Family and Student Community,” Jennifer Godinez emphasizes the persistence and desire of Latino families to provide higher education for their children. She uses her own story to highlight her parents’ reverence for education and the ways teachers can build upon these expectations with their students. It is a chapter that encourages all of us to focus on Latinos, the fastest growing demographic in our student population, and the gifts and aspirations they contribute to our schools and communities.

Verna Cornelia Price’s chapter “I Don’t Understand Why My African American Students Are Not Achieving” clearly and concisely spells out exactly why we have an educational gap in America and what needs to be done about it. With copious research and systematic explanation and recommendations, she makes it abundantly clear where we have gone wrong and how to make things right. She is direct, unflinching, and brings us her academic and psychological grasp of the subject in an accessible and powerful way. Bruce Douglas, Esrom Pitre, and Chance W. Lewis address a specific situation in their chapter entitled “African American Male Student-Athletes and White Teachers’ Classroom Interactions.” These authors reveal how African American student-athletes are not held to the same academic standards as
their classmates as long as they perform well in their designated school sports teams. The findings from this chapter will make us take a closer look at the potential damage we are doing to African American student-athletes.

In Part Four, “Creating Classrooms for Equity, Activism, and Social Justice,” three chapters provide ways to tap into activism in our students and their families and communities to move beyond equality and toward equity. William Perez, Susana Munoz, Cynthia Alcantar, and Nancy Guarneros, who collectively wrote chapter 21, “Educators Supporting DREAMERS: Becoming an Undocumented Student Ally,” present us with vivid anecdotes, extensive research, and action studies that show the difficulties undocumented students face, their position in the larger Latino community, and what teachers can do to advocate for them. These educators have a wealth of information and common sense suggestions for actively encouraging students and supporting the DREAM Act. Sharon Ishii-Jordan speaks from her perspective as a teacher educator. She is clear and unequivocal in her article “Preparing Teachers to Develop Inclusive Communities,” about what is needed to truly bring about equity in education and what part teachers can play in this. Finally, Bridgie A. Ford urges us to connect to the communities in which our students live in her chapter entitled “Culturally Responsive School-Community Partnerships: Strategy for Success.” While we often pay lip service to the importance of the community, we usually do very little to reach out to the world our students come from. Through this chapter we not only understand the importance of reaching out to parents and communities but are also given examples of ways of making this connection.

Ultimately, this book is only as useful as White teachers make it. We have culled together a rich, fresh look at schools and teachers from young and old; veteran and new; teachers and professors of color; and White teachers, researchers, and professors from all over the country. In their wise words they bring us new ways of looking at ourselves in relation to education, to race, and to the practice of teaching. Unless we put their suggestions into practice, not only in the classroom but in our own private moments of reflection; in our board rooms, faculty meetings, and town hall gatherings; racism, inequity, and the achievement gap will continue to deprive the majority of our students of the right to live up to their potential. Unless we are willing to make the effort to change the way we think and act, many young people will find themselves hopeless. Put in these terms, it is imperative to challenge racist assumptions in ourselves and others, and then to put into practice new strategies and form true partnerships with parents and communities across the United States. In 10 years, the majority of our students will be of color.
Our job then, as educators and change makers, is no less important than the healthy future of our young people and our world. And lest it be forgotten, White students, as well as those of color, have a great amount to gain from equity for all. For the sake of all our children we must follow up our reading with action and our contemplation with change. The writers, teachers, and thinkers in this book give us a way.
From *Social Class and the Hidden Curriculum of Work*

JEAN ANYON

It's no surprise that schools in wealthy communities are better than those in poor communities, or that they better prepare their students for desirable jobs. It may be shocking, however, to learn how vast the differences in schools are - not so much in resources as in teaching methods and philosophies of education. Jean Anyon observed five elementary schools over the course of a full school year and concluded that fifth-graders of different economic backgrounds are already being prepared to occupy particular rungs on the social ladder. In a sense, some whole schools are on the vocational education track, while others are geared to produce future doctors, lawyers, and business leaders. Anyon's main audience is professional educators, so you may find her style and vocabulary challenging, but, once you've read her descriptions of specific classroom activities, the more analytic parts of the essay should prove easier to understand. Anyon is chairperson of the Department of Education at Rutgers University, Newark; This essay first appeared in *Journal of Education* in 1980.

Scholars in political economy and the sociology of knowledge have recently argued that public schools in complex industrial societies like our own make available different types of educational experience and curriculum knowledge to students in different social classes. Bowles and Gintis, for example, have argued that students in different social-class backgrounds are rewarded for classroom behaviors that correspond to personality traits allegedly rewarded in the different occupational strata--the working classes for docility and obedience, the managerial classes for initiative and personal assertiveness. Basil Bernstein, Pierre Bourdieu, and Michael W. Apple focusing on school knowledge, have argued that knowledge and skills leading to social power and regard (medical, legal, managerial) are made available to the advantaged social groups but are withheld from the working classes to whom a more "practical" curriculum is offered (manual skills, clerical knowledge). While there has been considerable argumentation of these points regarding education in England, France, and North America, there has been little or no attempt to investigate these ideas empirically in elementary or secondary schools and classrooms in this country.

This article offers tentative empirical support (and qualification) of the above arguments by providing illustrative examples of differences in student work in classrooms in contrasting social class communities. The examples were gathered as part of an ethnographical study of curricular, pedagogical, and pupil evaluation practices in five elementary schools. The article attempts a theoretical contribution as well and assesses student work in the light of a theoretical approach to social-class analysis... It will be suggested that there is a "hidden curriculum" in schoolwork that has profound implications for the theory - and consequence - of everyday activity in education....

The Sample of Schools

... The social-class designation of each of the five schools will be identified, and the income, occupation, and other relevant available social characteristics of the students and their parents will be described. The first three schools are in a medium-sized city district in northern New Jersey, and the other two are in a nearby New Jersey suburb.

The first two schools I will call working class schools. Most of the parents have blue-collar jobs. Less than a third of the fathers are skilled, while the majority are in unskilled or semiskilled jobs. During the period of the study (1978-1979), approximately 15 percent of the fathers were unemployed. The
large majority (85 percent) of the families are white. The following occupations are typical: platform, storeroom, and stockroom workers; foundry-men, pipe welders, and boilermakers; semiskilled and unskilled assembly-line operatives; gas station attendants, auto mechanics, maintenance workers, and security guards. Less than 30 percent of the women work, some part-time and some full-time, on assembly lines, in storerooms and stockrooms, as waitresses, barmaids, or sales clerks. Of the fifth-grade parents, none of the wives of the skilled workers had jobs. Approximately 15 percent of the families in each school are at or below the federal "poverty" level; most of the rest of the family incomes are at or below $12,000, except some of the skilled workers whose incomes are higher. The incomes of the majority of the families in these two schools (at or below $12,000) are typical of 38.6 percent of the families in the United States.6

The third school is called the middle-class school, although because of 5 neighborhood residence patterns, the population is a mixture of several social classes. The parents' occupations can be divided into three groups: a small group of blue-collar "rich," who are skilled, well-paid workers such as printers, carpenters, plumbers, and construction workers. The second group is composed of parents in working-class and middle-class white-collar jobs: women in office jobs, technicians, supervisors in industry, and parents employed by the city (such as firemen, policemen, and several of the school's teachers). The third group is composed of occupations such as personnel directors in local firms, accountants, "middle management," and a few small capitalists (owners of shops in the area). The children of several local doctors attend this school. Most family incomes are between $13,000 and $25,000, with a few higher. This income range is typical of 38.9 percent of the families in the United States.7

The fourth school has a parent population that is at the upper income level of the upper middle class and is predominantly professional. This school will be called the affluent professional school. Typical jobs are: cardiologist, interior designer, corporate lawyer or engineer, executive in advertising or television. There are some families who are not as affluent as the majority (the family of the superintendent of the district's schools, and the one or two families in which the fathers are skilled workers). In addition, a few of the families are more affluent than the majority and can be classified in the capitalist class (a partner in a prestigious Wall Street stock brokerage firm). Approximately 90 percent of the children in this school are white. Most family incomes are between $40,000 and $80,000. This income span represents approximately 7 percent of the families in the United States.8

In the fifth school the majority of the families belong to the capitalist class. This school will be called the executive elite school because most of the fathers are top executives (for example, presidents and vice-presidents) in major United States-based multinational corporations - for example, AT&T, RCA, Citibank, American Express, U.S. Steel. A sizable group of fathers are top executives in financial firms in Wall Street. There are also a number of fathers who list their occupations as "general counsel" to a particular corporation, and these corporations are also among the large multi-nationals. Many of the mothers do volunteer work in the Junior League, Junior Fortnightly, or other service groups; some are intricately involved in town politics; and some are themselves in well-paid occupations. There are no minority children in the school. Almost all the family incomes are over $100,000 with some in the $500,000 range. The incomes in this school represent less than 1 percent of the families in the United States.9

Since each of the five schools is only one instance of elementary education in a particular social class context, I will not generalize beyond the sample. However, the examples of schoolwork which follow will suggest characteristics of education in each social setting that appear to have theoretical and social significance and to be worth investigation in a larger number of schools.

*The Working Class Schools*

In the two working-class schools, work is following the steps of a procedure. The procedure is usually
mechanical, involving rote behavior and very little decision making or choice. The teachers rarely explain why the work is being assigned, how it might connect to other assignments, or what the idea is that lies behind the procedure or gives it coherence and perhaps meaning or significance. Available textbooks are not always used, and the teachers often prepare their own dittos or put work examples on the board. Most of the rules regarding work are designations of what the children are to do; the rules are steps to follow. These steps are told to the children by the teachers and are often written on the board. The children are usually told to copy the steps as notes. These notes are to be studied. Work is often evaluated not according to whether it is right or wrong but according to whether the children followed the right steps.

The following examples illustrate these points. In math, when two-digit division was introduced, the teacher in one school gave a four-minute lecture on what the terms are called (which number is the divisor, dividend, quotient, and remainder). The children were told to copy these names in their notebooks. Then the teacher told them the steps to follow to do the problems, saying, "This is how you do them." The teacher listed the steps on the board, and they appeared several days later as a chart hung in the middle of the front wall: "Divide, Multiply, Subtract, Bring Down." The children often did examples of two-digit division. When the teacher went over the examples with them, he told them what the procedure was for each problem, rarely asking them to conceptualize or explain it themselves: "Three into twenty-two is seven; do your subtraction and one is left over." During the week that two-digit division was introduced (or at any other time), the investigator did not observe any discussion of the idea of grouping involved in division, any use of manipulables, or any attempt to relate two-digit division to any other mathematical process. Nor was there any attempt to relate the steps to an actual or possible thought process of the children. The observer did not hear the terms dividend, quotient, and so on, used again. The math teacher in the other working-class school followed similar procedures regarding two-digit division and at one point her class seemed confused. She said, "You're confusing yourselves. You're tensing up. Remember, when you do this, it's the same steps over and over again--and that's the way division always is." Several weeks later, after a test, a group of her children "still didn't get it," and she made no attempt to explain the concept of dividing things into groups or to give them manipulables for their own investigation. Rather, she went over the steps with them again and told them that they "needed more practice."

In other areas of math, work is also carrying out often unexplained fragmented procedures. For example, one of the teachers led the children through a series of steps to make a 1-inch grid on their paper without telling them that they were making a 1-inch grid or that it would be used to study scale. She said, "Take your ruler. Put it across the top. Make a mark at every number. Then move your ruler down to the bottom. No, put it across the bottom. Now make a mark on top of every number. Now draw a line from..." At this point a girl said that she had a faster way to do it and the teacher said, "No, you don't; you don't even know what I'm making yet. Do it this way or it's wrong." After they had made the lines up and down and across, the teacher told them she wanted them to make a figure by connecting some dots and to measure that, using the scale of 1 inch equals 1 mile. Then they were to cut it out. She said, "Don't cut it until I check it."

In both working-class schools, work in language arts is mechanics of punctuation (commas, periods, question marks, exclamation points), capitalization, and the four kinds of sentences. One teacher explained to me, "Simple punctuation is all they'll ever use." Regarding punctuation, either a teacher or a ditto stated the rules for where, for example, to put commas. The investigator heard no classroom discussion of the aural context of punctuation (which, of course, is what gives each mark its meaning). Nor did the investigator hear any statement or inference that placing a punctuation mark could be a decision-making process, depending, for example, on one's intended meaning. Rather, the children were told to follow the rules. Language arts did not involve creative writing. There were several writing assignments throughout the year but in each instance the children were given a ditto, and they wrote answers to questions on the sheet. For example, they wrote their "autobiography" by answering such questions as "Where were you born?" "What is your favorite animal?" on a sheet entitled "All
In one of the working-class schools, the class had a science period several times a week. On the three occasions observed, the children were not called upon to set up experiments or to give explanations for facts or concepts. Rather, on each occasion the teacher told them in his own words what the book said. The children copied the teacher's sentences from the board. Each day that preceded the day they were to do a science experiment, the teacher told them to copy the directions from the book for the procedure they would carry out the next day and to study the list at home that night. The day after each experiment, the teacher went over what they had "found" (they did the experiments as a class, and each was actually a class demonstration led by the teacher). Then the teacher wrote what they "found" on the board, and the children copied that in their notebooks. Once or twice a year there are science projects. The project is chosen and assigned by the teacher from a box of 3-by-5-inch cards. On the card the teacher has written the question to he answered, the books to use, and how much to write. Explaining the cards to the observer, the teacher said, "It tells them exactly what to do, or they couldn't do it."

Social studies in the working-class schools is also largely mechanical, rote work that was given little explanation or connection to larger contexts. In one school, for example, although there was a book available, social studies work was to copy the teacher's notes from the board. Several times a week for a period of several months the children copied these notes. The fifth grades in the district were to study United States history. The teacher used a booklet she had purchased called "The Fabulous Fifty States." Each day she put information from the booklet in outline form on the board and the children copied it. The type of information did not vary: the name of the state, its abbreviation, state capital, nickname of the state, its main products, main business, and a "Fabulous Fact" ("Idaho grew twenty-seven billion potatoes in one year. That's enough potatoes for each man, woman, and..."") As the children finished copying the sentences, the teacher erased them and wrote more. Children would occasionally go to the front to pull down the wall map in order to locate the states they were copying, and the teacher did not dissuade them. But the observer never saw her refer to the map; nor did the observer ever hear her make other than perfunctory remarks concerning the information the children were copying. Occasionally the children colored in a ditto and cut it out to make a stand-up figure (representing, for example, a man roping a cow in the Southwest). These were referred to by the teacher as their social studies "projects."

Rote behavior was often called for in classroom work. When going over 15 math and language art skills sheets, for example, as the teacher asked for the answer to each problem, he fired the questions rapidly, staccato, and the scene reminded the observer of a sergeant drilling recruits: above all, the questions demanded that you stay at attention: "The next one? What do I put here? . . . Here? Give us the next." Or "How many commas in this sentence? Where do I put them . . . The next one?"

The four fifth grade teachers observed in the working-class schools attempted to control classroom time and space by making decisions without consulting the children and without explaining the basis for their decisions. The teacher's control thus often seemed capricious. Teachers, for instance, very often ignored the bells to switch classes - deciding among themselves to keep the children after the period was officially over to continue with the work or for disciplinary reasons or so they (the teachers) could stand in the hall and talk. There were no clocks in the rooms in either school, and the children often asked, "What period is this?" "When do we go to gym?" The children had no access to materials. These were handed out by teachers and closely guarded. Things in the room "belonged" to the teacher: "Bob, bring me my garbage can." The teachers continually gave the children orders. Only three times did the investigator hear a teacher in either working-class school preface a directive with an unsarcastic "please," or "let's" or "would you." Instead, the teachers said, "Shut up," "Shut your mouth," "Open your books," "Throw your gum away-if you want to rot your teeth, do it on your own time." Teachers made every effort to control the movement of the children, and often shouted, "Why are you out of your seat?!!" If the children got permission to leave the room, they had to take a
Middle-Class School

In the middle-class school, work is getting the right answer. If one accumulates enough right answers, one gets a good grade. One must follow the directions in order to get the right answers, but the directions often call for some figuring, some choice, some decision making. For example, the children must often figure out by themselves what the directions ask them to do and how to get the answer: what do you do first, second, and perhaps third? Answers are usually found in books or by listening to the teacher. Answers are usually words, sentences, numbers, or facts and dates; one writes them on paper, and one should be neat. Answers must be given in the right order, and one cannot make them up.

The following activities are illustrative. Math involves some choice: one may do two-digit division the long way or the short way, and there are some math problems that can be done "in your head." When the teacher explains how to do two-digit division, there is recognition that a cognitive process is involved; she gives you several ways and says, "I want to make sure you understand what you're doing-so you get it right"; and, when they go over the homework, she asks the children to tell how they did the problem and what answer they got.

In social studies the daily work is to read the assigned pages in the textbook and to answer the teacher's questions. The questions are almost always designed to check on whether the students have read the assignment and understood it: who did so-and-so; what happened after that; when did it happen, where, and sometimes, why did it happen? The answers are in the book and in one's understanding of the book; the teacher's hints when one doesn't know the answers are to "read it again" or to look at the picture or at the rest of the paragraph. One is to search for the answer in the "context," in what is given.

Language arts is "simple grammar, what they need for everyday life." The language arts teacher says, "They should learn to speak properly, to write business letters and thank-you letters, and to understand what nouns and verbs and simple subjects are." Here, as well, actual work is to choose the right answers, to understand what is given. The teacher often says, "Please read the next sentence and then I'll question you about it." One teacher said in some exasperation to a boy who was fooling around in class, "If you don't know the answers to the questions I ask, then you can't stay in this class! [pause] You never know the answers to the questions I ask, and it's not fair to me-and certainly not to you!"

Most lessons are based on the textbook. This does not involve a critical perspective on what is given there. For example, a critical perspective in social studies is perceived as dangerous by these teachers because it may lead to controversial topics; the parents might complain. The children, however, are often curious especially in social studies. Their questions are tolerated and usually answered perfunctorily. But after a few minutes the teacher will say, "All right, we're not going any farther. Please open your social studies workbook." While the teachers spend a lot of time explaining and expanding on what the textbooks say, there is little attempt to analyze how or why things happen, or to give thought to how pieces of a culture, or, say, a system of numbers or elements of a language fit together or can be analyzed. What has happened in the past and what exists now may not be equitable or fair, but (shrug) that is the way things are and one does not confront such matters in school. For example, in social studies after a child is called on to read a passage about the pilgrims, the teacher summarizes the paragraph and then says, "So you can see how strict they were about everything." A child asks, "Why?" "Well, because they felt that if you weren't busy you'd get into trouble." Another child asks, "Is it true that they burned women at the stake?" The teacher says, "Yes, if a woman did anything strange, they hanged them. [sic] What would a woman do, do you think, to make them burn them? [sic] See if you can come up with better answers than my other [social studies] class." Several
children offer suggestions, to which the teacher nods but does not comment. Then she says, "Okay, good," and calls on the next child to read.

Work tasks do not usually request creativity. Serious attention is rarely given in school work on how the children develop or express their own feelings and ideas, either linguistically or in graphic form. On the occasions when creativity or self-expression is requested, it is peripheral to the main activity or it is "enriched" or "for fun." During a lesson on what similes are, for example, the teacher explains what they are, puts several on the board, gives some other examples herself, and then asks the children if they can "make some up." She calls on three children who give similes, two of which are actually in the book they have open before them. The teacher does not comment on this and then asks several others to choose similes from the list of phrases in the book. Several do so correctly, and she says, "Oh good! You're picking them out! See how good we are?" Their homework is to pick out the rest of the similes from the list.

Creativity is not often requested in social studies and science projects, either. Social studies projects, for example, are given with directions to "find information on your topic" and write it up. The children are not supposed to copy but to "put it in your own words." Although a number of the projects subsequently went beyond the teacher's direction to find information and had quite expressive covers and inside illustrations, the teacher's evaluative comments had to do with the amount of information, whether they had "copied," and if their work was neat.

The style of control of the three fifth-grade teachers observed in this school varied from somewhat easygoing to strict, but in contrast to the working-class schools, the teachers' decisions were usually based on external rules and regulations--for example, on criteria that were known or available to the children. Thus, the teachers always honor the bells for changing classes, and they usually evaluate children's work by what is in the textbooks and answer booklets.

There is little excitement in schoolwork for the children, and the assignments are perceived as having little to do with their interests and feelings. As one child said, what you do is "store facts up in your head like cold storage - until you need it later for a test or your job." Thus, doing well is important because there are thought to be other likely rewards: a good job or college.  

**Affluent Professional School**

In the affluent professional school, work is creative activity carried out independently. The students are continually asked to express and apply ideas and concepts. Work involves individual thought and expressiveness, expansion and illustration of ideas, and choice of appropriate method and material. (The class is not considered an open classroom, and the principal explained that because of the large number of discipline problems in the fifth grade this year they did not departmentalize. The teacher who agreed to take part in the study said she is "more structured this year than she usually is.) The products of work in this class are often written stories, editorials and essays, or representations of ideas in mural, graph, or craft form. The products of work should not be like anybody else's and should show individuality. They should exhibit good design, and (this is important) they must also fit empirical reality. The relatively few rules to be followed regarding work are usually criteria for, or limits on, individual activity. One's product is usually evaluated for the quality of its expression and for the appropriateness of its conception to the task. In many cases, one's own satisfaction with the product is an important criterion for its evaluation. When right answers are called for, as in commercial materials like SRA (Science Research Associates) and math, it is important that the children decide on an answer as a result of thinking about the idea involved in what they're being asked to do. Teacher's hints are to "think about it some more."

The following activities are illustrative. The class takes home a sheet requesting each child's parents to fill in the number of cars they have, the number of television sets, refrigerators, games, or rooms in
the house, and so on. Each child is to figure the average number of a type of possession owned by the
fifth grade. Each child must compile the "data" from all the sheets. A calculator is available in the
classroom to do the mechanics of finding the average. Some children decide to send sheets to the
fourth-grade families for comparison. Their work should be "verified" by a classmate before it is
handed in.

Each child and his or her family has made a geoboard. The teacher asks the class to get their
geoboards from the side cabinet, to take a handful of rubber bands, and then to listen to what she
would like them to do. She says, "I would like you to design a figure and then find the perimeter and
area. When you have it, check with your neighbor. After you've done that, please transfer it to graph
paper and tomorrow I'll ask you to make up a question about it for someone. When you hand it in,
please let me know whose it is and who verified it. Then I have something else for you to do that's
really fun. [pause] Find the average number of chocolate chips in three cookies. I'll give you three
cookies, and you'll have to eat your way through, I'm afraid!" Then she goes around the room and
gives help, suggestions, praise, and admonishments that they are getting noisy. They work sitting, or
standing up at their desks, at benches in the back, or on the floor. A child hands the teacher his paper
and she comments, "I'm not accepting this paper. Do a better design." To another child she says,
"That's fantastic! But you'll never find the area. Why don't you draw a figure inside [the big one] and
subtract to get the area?"

The school district requires the fifth grade to study ancient civilization (in particular, Egypt, Athens,
and Sumer). In this classroom, the emphasis is on illustrating and re-creating the culture of the people
of ancient times. The following are typical activities: the children made an 8mm film on Egypt, which
one of the parents edited. A girl in the class wrote the script, and the class acted it out. They put the
sound on themselves. They read stories of those days. They wrote essays and stories depicting the
lives of the people and the societal and occupational divisions. They chose from a list of projects, all
of which involved graphical presentations of ideas: for example, "Make a mural depicting the division
of labor in Egyptian society."

Each wrote and exchanged a letter in hieroglyphics with a fifth grader in another class, and they also
exchanged stories they wrote in cuneiform. They made a scroll and singed the edges so it looked
authentic. They each chose an occupation and made an Egyptian plaque representing that occupation,
simulating the appropriate Egyptian design. They carved their design on a cylinder of wax, pressed
the wax into clay, and then baked the clay. Although one girl did not choose an occupation but carved
instead a series of gods and slaves, the teacher said, "That's all right, Amber, it's beautiful." As they
were working the teacher said, "Don't cut into your clay until you're satisfied with your design."

Social studies also involves almost daily presentation by the children of some event from the news.
The teacher's questions ask the children to expand what they say, to give more details, and to be more
specific. Occasionally she adds some remarks to help them see connections between events.

The emphasis on expressing and illustrating ideas in social studies is accompanied in language arts by
an emphasis on creative writing. Each child wrote a rebus story for a first grader whom they had
interviewed to see what kind of story the child liked best. They wrote editorials on pending decisions
by the school board and radio plays, some of which were read over the school intercom from the
office and one of which was performed in the auditorium. There is no language arts textbook because,
the teacher said, "The principal wants us to be creative." There is not much grammar, but there is
punctuation. One morning when the observer arrived, the class was doing a punctuation ditto. The
teacher later apologized for using the ditto. "It's just for review," she said. "I don't teach punctuation
that way. We use their language." The ditto had three unambiguous rules for where to put commas in
a sentence. As the teacher was going around to help the children with the ditto, she repeated several
times, "where you put commas depends on how you say the sentence; it depends on the situation and
what you want to say. Several weeks later the observer saw another punctuation activity. The teacher
had printed a five-paragraph story on an oak tag and then cut it into phrases. She read the whole story
to the class from the book, then passed out the phrases. The group had to decide how the phrases could best be put together again. (They arranged the phrases on the floor.) The point was not to replicate the story, although that was not irrelevant, but to "decide what you think the best way is." Punctuation marks on cardboard pieces were then handed out, and the children discussed and then decided what mark was best at each place they thought one was needed. At the end of each paragraph the teacher asked, "Are you satisfied with the way the paragraphs are now? Read it to yourself and see how it sounds." Then she read the original story again, and they compared the two.

Describing her goals in science to the investigator, the teacher said, "We use ESS (Elementary Science Study). It's very good because it gives a hands-on experience--so they can make sense out of it. It doesn't matter whether it [what they find] is right or wrong. I bring them together and there's value in discussing their ideas."

The products of work in this class are often highly valued by the children and the teacher. In fact, this was the only school in which the investigator was not allowed to take original pieces of the children's work for her files. If the work was small enough, however, and was on paper, the investigator could duplicate it on the copying machine in the office.

The teacher's attempt to control the class involves constant negotiation. She does not give direct orders unless she is angry because the children have been too noisy. Normally, she tries to get them to foresee the consequences of their actions and to decide accordingly. For example, lining them up to go see a play written by the sixth graders, she says, "I presume you're lined up by someone with whom you want to sit. I hope you're lined up by someone you won't get in trouble with."... 

One of the few rules governing the children's movement is that no more than three children may be out of the room at once. There is a school rule that anyone can go to the library at any time to get a book. In the fifth grade I observed, they sign their name on the chalkboard and leave. There are no passes. Finally, the children have a fair amount of officially sanctioned say over what happens in the class. For example, they often negotiate what work is to be done. If the teacher wants to move on to the next subject, but the children say they are not ready, they want to work on their present projects some more, she very often lets them do it.

Executive Elite School

In the executive elite school, work is developing one's analytical intellectual powers. Children are continually asked to reason through a problem, to produce intellectual products that are both logically sound and of top academic quality. A primary goal of thought is to conceptualize rules by which elements may fit together in systems and then to apply these rules in solving a problem. Schoolwork helps one to achieve, to excel, to prepare for life.

The following are illustrative. The math teacher teaches area and perimeter by having the children derive formulas for each. First she helps them, through discussion at the board, to arrive at $A = W \times L$ as a formula (not the formula) for area. After discussing several, she says, "Can anyone make up a formula for perimeter? Can you figure that out yourselves? [pause] Knowing what we know, can we think of a formula?" She works out three children's suggestions at the board, saying to two, "Yes, that's a good one," and then asks the class if they can think of any more. No one volunteers. To prod them, she says, "If you use rules and good reasoning, you get many ways. Chris, can you think up a formula?"

She discusses two-digit division with the children as a decision-making process. Presenting a new type of problem to them, she asks, "What's the first decision you'd make if presented with this kind of example? What is the first thing you'd think? Craig?" Craig says, "To find my first partial quotient." She responds, "Yes, that would be your first decision. How would you do that?" Craig explains, and
then the teacher says, "OK, we'll see how that works for you." The class tries his way. Subsequently, she comments on the merits and shortcomings of several other children's decisions. Later, she tells the investigator that her goals in math are to develop their reasoning and mathematical thinking and that, unfortunately, "there's no time for manipulables."

While right answers are important in math, they are not "given" by the book or by the teacher but may be challenged by the children. Going over some problems in late September the teacher says, "Raise your hand if you do not agree." A child says, "I don't agree with sixty-four." The teacher responds, "OK, there's a question about sixty-four. [to class] Please check it. Owen, they're disagreeing with you. Kristen, they're checking yours." The teacher emphasized this repeatedly during September and October with statements like "Don't be afraid to say you disagree. In the last [math] class, somebody disagreed, and they were right. Before you disagree, check yours, and if you still think we're wrong, then we'll check it out." By Thanksgiving, the children did not often speak in terms of right and wrong math problems but of whether they agreed with the answer that had been given.

There are complicated math mimeos with many word problems. Whenever they go over the examples, they discuss how each child has set up the problem. The children must explain it precisely. On one occasion the teacher said, "I'm more--just as interested in how you set up the problem as in what answer you find. If you set up a problem in a good way, the answer is easy to find.

Social studies work is most often reading and discussion of concepts and independent research. There are only occasional artistic, expressive, or illustrative projects. Ancient Athens and Sumer are, rather, societies to analyze. The following questions are typical of those that guide the children's independent research. "What mistakes did Pericles make after the war?" "What mistakes did the citizens of Athens make?" "What are the elements of a civilization?" "How did Greece build an economic empire?" "Compare the way Athens chose its leaders with the way we choose ours." Occasionally the children are asked to make up sample questions for their social studies tests. On an occasion when the investigator was present, the social studies teacher rejected a child's question by saying, "That's just fact. If I asked you that question on a test, you'd complain it was just memory! Good questions ask for concepts."

In social studies--but also in reading, science, and health--the teachers initiate classroom discussions of current social issues and problems. These discussions occurred on every one of the investigator's visits, and a teacher told me, "These children's opinions are important - it's important that they learn to reason things through." The classroom discussions always struck the observer as quite realistic and analytical, dealing with concrete social issues like the following: "Why do workers strike?" "Is that right or wrong?" "Why do we have inflation, and what can be done to stop it?" "Why do companies put chemicals in food when the natural ingredients are available?" and so on. Usually the children did not have to be prodded to give their opinions. In fact, their statements and the interchanges between them struck the observer as quite sophisticated conceptually and verbally, and well-informed. Occasionally the teachers would prod with statements such as, "Even if you don't know [the answers], if you think logically about it, you can figure it out." And "I'm asking you [these] questions to help you think this through."

Language arts emphasizes language as a complex system, one that should be mastered. The children are asked to diagram sentences of complex grammatical construction, to memorize irregular verb conjugations (he lay, he has lain, and so on ...), and to use the proper participles, conjunctions, and interjections in their speech. The teacher (the same one who teaches social studies) told them, "It is not enough to get these right on tests; you must use what you learn [in grammar classes] in your written and oral work. I will grade you on that."

Most writing assignments are either research reports and essays for social studies or experiment analyses and write-ups for science. There is only an occasional story or other "creative writing" assignment. On the occasion observed by the investigator (the writing of a Halloween story), the
points the teacher stressed in preparing the children to write involved the structural aspects of a story rather than the expression of feelings or other ideas. The teacher showed them a filmstrip, "The Seven Parts of a Story," and lectured them on plot development, mood setting, character development, consistency, and the use of a logical or appropriate ending. The stories they subsequently wrote were, in fact, well-structured, but many were also personal and expressive. The teacher's evaluative comments, however, did not refer to the expressiveness or artistry but were all directed toward whether they had "developed" the story well.

Language arts work also involved a large amount of practice in presentation of the self and in managing situations where the child was expected to be in charge. For example, there was a series of assignments in which each child had to be a "student teacher." The child had to plan a lesson in grammar, outlining, punctuation, or other language arts topic and explain the concept to the class. Each child was to prepare a worksheet or game and a homework assignment as well. After each presentation, the teacher and other children gave a critical appraisal of the "student teacher's" performance. Their criteria were: whether the student spoke clearly, whether the lesson was interesting, whether the student made any mistakes, and whether he or she kept control of the class. On an occasion when a child did not maintain control, the teacher said, "When you're up there, you have authority and you have to use it. I'll back you up."

The executive elite school is the only school where bells do not demarcate the periods of time. The two fifth-grade teachers were very strict about changing classes on schedule, however, as specific plans for each session had been made. The teachers attempted to keep tight control over the children during lessons, and the children were sometimes flippant, boisterous, and occasionally rude. However, the children may be brought into line by reminding them that "It is up to you." "You must control yourself," "you are responsible for your work," you must "set your own priorities." One teacher told a child, "You are the only driver of your car and only you can regulate your speed." A new teacher complained to the observer that she had thought "these children" would have more control.

While strict attention to the lesson at hand is required, the teachers make relatively little attempt to regulate the movement of the children at other times. For example, except for the kindergartners the children in this school do not have to wait for the bell to ring in the morning; they may go to their classroom when they arrive at school. Fifth graders often came early to read, to finish work, or to catch up. After the first two months of school, the fifth-grade teachers did not line the children up to change classes or to go to gym, and so on, but, when the children were ready and quiet, they were told they could go--sometimes without the teachers.

In the classroom, the children could get materials when they needed them and took what they needed from closets and from the teacher's desk. They were in charge of the office at lunchtime. During class they did not have to sign out or ask permission to leave the room; they just got up and left. Because of the pressure to get work done, however, they did not leave the room very often. The teachers were very polite to the children, and the investigator heard no sarcasm, no nasty remarks, and few direct orders. The teachers never called the children "honey" or "dear" but always called them by name. The teachers were expected to be available before school, after school, and for part of their lunchtime to provide extra help if needed.

The foregoing analysis of differences in schoolwork in contrasting social class contexts suggests the following conclusion: the "hidden curriculum" of schoolwork is tacit preparation for relating to the process of production in a particular way. Differing curricular, pedagogical, and pupil evaluation practices emphasize different cognitive and behavioral skills in each social setting and thus contribute to the development in the children of certain potential relationships to physical and symbolic capital, to authority, and to the process of work. School experience, in the sample of schools discussed here, differed qualitatively by social class. These differences may not only contribute to the development in the children in each social class of certain types of economically significant
relationships and not others but would thereby help to reproduce this system of relations in society. In the contribution to the reproduction of unequal social relations lies a theoretical meaning and social consequence of classroom practice.

The identification of different emphases in classrooms in a sample of contrasting social class contexts implies that further research should be conducted in a large number of schools to investigate the types of work tasks and interactions in each to see if they differ in the ways discussed here and to see if similar potential relationships are uncovered. Such research could have as a product the further elucidation of complex but not readily apparent connections between everyday activity in schools and classrooms and the unequal structure of economic relationships in which we work and live.

NOTES


4. ethnographical: Based on an anthropological study of cultures or subcultures-the "cultures" in this case being the five schools being observed.


7. Ibid. [Author's note]

8. This figure is an estimate. According to the Bureau of the Census, only 2.6 percent of families in the United States have money income of $50,000 or over. U.S. Bureau of the Census, *Current Population Reports* Series P-60. For figures on income at these higher levels, see J.D. Smith and S. Franklin, "The Concentration of Personal Wealth, 1922-1969," *American Economic Review* 64 (1974): 162-67. [Author's note]


10. A dominant feeling expressed directly and indirectly by teachers in this school, was boredom with their work. They did, however, in contrast to the working-class schools, almost always carry out lessons during class times. [Author's note]

11. *physical and symbolic capital:* Elsewhere Anyon defines *capital* as "property that is used to produce profit, interest, or rent": she defines *symbolic capital* as the knowledge and skills that "may yield social and cultural power."
PART I
Advancing the Conversation

Tears Worth Telling: Urban Teaching and the Possibilities of Racial Justice

Cheryl E. Matias
University of Colorado Denver

Silencing race dialogue in urban classrooms is painful for students of color. The author of this article, an urban teacher, documents her resistance to colorblind racism by strategically including race in daily classroom practices. She argues that acknowledging emotionality and Whiteness are essential steps that teachers must take to reinvest in prolonged racially-just projects.

As a critical race teacher educator of color, I constantly reflect on my K–12 classroom experience (both as an urban student and teacher) so the essence of what I teach and research remains grounded in the struggles of my Black and Brown students. After years of teaching in both the Los Angeles Unified School District and the New York City Department of Education, forever burned in my heart were the tears of my urban students of color. There was a specific teaching moment when I openly shared my own counterstories of pain and realized that my students were crying, too. Riddled with guilt, I asked my students why the tears. The closed mouths belied an unspoken knowledge of shared experiences. Shaking her head one student echoed my pain by saying, “It’s just racist. It’s just so racist.” This article is a counterstory of the tears of urban students of color and how I, as their teacher, acknowledged and invested in their tears, in order to find a way to wipe them away.

In bearing witness to their tears, I never once felt I must save them, like the dominant narrative of missionaries or saviors in poor communities so popularized by mainstream films such as Dangerous Minds, Freedom Writers, The Blind Side, and so on (see Matias, in press; Vera & Gordon, 2003). Rather, I had to support them because in their anguish, I saw myself: these were familiar tears of my own racialized past. This is the same pain I felt when I heard one of my students say, “What’s the point? I’m Black.” Embedded in that seemingly simple question is the painful result of a “colorblind” educational system that renders the double consciousness of colored beings false when, in fact, it is the conscious reality of people of color (Du Bois, 2007; Solórzano & Yosso, 2002).

Although I intimately understood the cries of my students, I admittedly received my teacher training from White teacher educators whose focus on celebrations of multiculturalism, cultural pluralism, and cultural responsiveness were nonetheless filtered by the ocular of Whiteness (Leonardo, 2009; Matias, 2013; Yoon, 2012). The permanence of these manifestations were hushed by the white noise of mainstream films. This inadvertently trained me to teach like a White missionary teacher; meaning, although my White teacher educators trained me with theories conceptualized by scholars of color, they filtered out the salient aspects of why these theories came to be, namely, they were policies born of racism and White supremacy in education (Gillborn, 2006; Ladson-Billings, 1998). The permanence of these manifestations were hushed by the white noise...
appropriated as the “correct” filter for training urban teachers in studies of diversity and multiculturalism. Ironically, this was the same training of my K–12 urban White teachers whose colorblind racism—a process of claiming not to see race yet acting out racist practices (Bonilla-Silva, 2010)—produced in me these same tears. Therefore, instead of submitting to this colorblind racism, bound by my principles in racial justice, I decided to become a new kind of critical race teacher and, in doing so, validate all these tears.

My counterstory as an urban teacher of color amidst an overwhelming White teaching force exemplifies how a teacher can disrupt the normalcy of Whiteness in education such that the tears of our students of color are not shed in vain.

This article shares the uncertain path to putting race into daily classroom teaching, since operating under the rigidity of the colorblind racism plaguing urban schools was difficult. My counterstory as an urban teacher of color amidst an overwhelming White teaching force exemplifies how a teacher can disrupt the normalcy of Whiteness in education such that the tears of our students of color are not shed in vain. I do not insist that it is the model for racial justice in urban classrooms, precisely because the most beautiful aspect of teaching—as teachers know—is that we always try amidst failure and hopelessness. Thus, I present my counterstory replete with the metacognitive, emotional, and spiritual struggles I underwent in attempting to resist the repressed violence that normalizes the silencing of race (see Leonardo & Porter, 2010). It would be disingenuous not to divulge that I am now responsible for training the next generation of urban teachers as a teacher educator; fortuitously, with this new role, I can look back at my own career with the critical lens needed to analyze the context of urban teaching. Therefore, I end with implications.

Marrying Theory: Critical Social Theory, Critical Race Theory, and Critical Whiteness Studies

My reflective counterstory draws from a plethora of critical race theories. In isolation, each was not enough for me to fully grasp the complexities of race; however, in concert, I found a more complete understanding of why teachers and urban students of color experience dehumanization in a White-dominated educational system. First, I draw from critical social theory of race because it “encourages the production and application of theory as a part of the overall search for transformative knowledge” (Leonardo, 2009, p. 13). For example, Leonardo and Porter’s (2010) Fanonian application of repressed violence and false safety in race dialogues provides a context that, when applied to teaching, can best explain the conditions of urban teachers and students of color. Just as symbolic violence and false safety in race dialogues ultimately upholds the narcissism of Whiteness, it is the same for the entire context of teaching. Since the teaching force, curricula, policies, and teacher education pipeline are White-dominant, the context for repressed forms of violence is maintained. If disrupted, White performative recurrences of anger, avoidance, guilt, dismissal, and repression stifle race knowledge.

In order to survive this repressed White violence, students of color are merely “playing along” to become “masters of deflection” (Leonardo & Porter, 2010, p. 151). They do this to maintain a sense of “safety in [these] violent circumstances” (p. 151). The emotional cost is exemplified through their tears.

Teachers must employ a humanizing violence that “shifts the standards of humanity by providing space for the free expression of people’s thoughts and emotions that are not regulated by the discourse of safety” (Leonardo & Porter, 2010, p.148). In training teacher candidates, I teach them the falsity of a benign status quo because status quo is replete with repressed violence. Teachers who maintained this repressed violence—whether intentional or not—left both my students and I in tears. This leads to the need for resistive humanistic violence, necessary for true race dialogue to begin.

I also employ critical race theory (CRT) because it acknowledges the endemic nature of race, racism, and White supremacy, while validating counterstories (Delgado & Stefancic, 2001). Counterstories provide people of color an understanding that the daily acts of racism they incur are not isolated acts of violence; rather, they are systemic acts of macroaggressions and macroviolence (Gildersleeve, Croom, & Vasquez, 2011; Sue, Nadal, Capodilupo, Lin, Torino, & Rivera, 2008). When they are spoken aloud, they disrupt dominant narratives and allow people of color to feel supported, heard, and validated, which in turn contributes to everyone’s understanding of a larger dynamics of race (Matias 2012; Solórzano & Yosso, 2002).

Applied to teaching, counterstories that reflect racial microaggressions, racial battle fatigue, and/or internalized racism are racially-educative because their articulation shows how race, racism, and White supremacy are enacted (Bernal, 2002; Dixson & Rousseau, 2005).
However, this racially rich knowledge is often silenced in the colorblind, racist, urban classroom (see Zamudio, Russell, Rios, & Bridgeman, 2011) precisely because:

1) the majority of urban teachers who are White are discomforted by discussions of race (Duncan, 2002);
2) Eurocentric curriculum and standards do not explicitly address the advantages of creating a racial hierarchy which systematically shuts out dialogues of race (Ladson-Billings, 1998); and,
3) although there has been pedagogical application of CRT in higher education (Jennings & Lynn, 2005; Lynn, 1999), ways in which teachers can pedagogically enact CRT inside the K–12 classroom are lacking.

As such, managing dialogues of race inside the K–12 classroom becomes an arduous task, despite the overwhelming possibilities it has for creating humanizing projects of race. Relating to my classroom teaching experiences, CRT reminds me that the permanence of race, racism, and White supremacy are so entrenched in the fabric of our educational society that they often render similar phenomena for those racially marginalized. Recognizing this helps me understand why I had such an intimate kinship to my urban students of color; in them, I see me.

Last, I utilize critical Whiteness studies precisely because I needed to fully comprehend the complexity for why voices, stories, and identities of people of color are marginalized in the first place. If racism is the symptom, then it is White supremacy and Whiteness that are the disease. Critical Whiteness studies go beyond the acknowledgement of White privilege (McIntosh, 2001) and stages of White racial identity (Helms, 1990) and into an interdisciplinary approach to how Whiteness is materialized through political, economic, and emotional means (Allen, 2001; Massey & Denton, 1993; Roediger, 1999).

For example, Thandeka (1999) explores the emotional well-being of Whites entrenched in Whiteness by positing that their emotional investment stems from their shame of recognizing the reality of race. She articulates this as a form of psychological abuse, because it teaches Whites to ignore to what they bear witness. Such a process thus produces a form of neurosis that forces Whites to believe in colorblindness, despite its known falsity. Acknowledging this dynamics adds to how I understand Leonardo and Porter’s (2010) violence. When White shame is revealed, it becomes too emotionally unbearable in the context of interracial dialogue. However, as CRT asserts, this type of racial humiliation happens to people of color on a daily basis; thus, its application helps balance my views on Whiteness. Such humiliation is necessary to open the possibility of true humanizing race dialogue (Leonardo & Porter, 2010).

Counterstories must be heard in a race dialogue in order for White teacher candidates to feel the pain of racism. However, this is quite a task when the professor telling the counterstory is the only person of color in the room and White teacher candidates are resisting both the content of the course and the professor as the symbolic representation of their shame. Too often, my largely White, middle-class, female teacher candidates are so entrenched in their Whiteness, complete with colorblind racism, that they choose to ignore how that investment hurts people of color (see Bonilla-Silva & Embrick, 2006; DeJesus & Ma, 2004; Matias, in press; Williams & Evans-Winters, 2005). They proclaim an overwhelming passion to teach urban students of color without ever demonstrating emotion for the racial context that burden their future students. How can one be genuinely passionate when she/he becomes emotionally frozen when discussing race, one of the most salient issues of urban schooling? With respect to CRT’s tenet for social justice, how can urban teachers who are not emotionally, intellectually, and critically versed in race expect to have prolonged projects about racial justice if they themselves emotionally disinvest when it gets uncomfortable? Until teachers re-learn emotional investment, they will not sustain the emotional discomfort, a process felt in racial justice. Below is my story of how I became emotionally invested through tears.

**Reflective Counterstory**

Instead of sitting inside the teachers’ lounge early in my career, I often chose to eat alone. Inside that White space, White teachers performed an ongoing liberal discussion that pathologized students of color and their parents as low achievers, at risk, and in need of additional special education. Most disconcerting was how this racially-coded discourse entrenched itself in a false empathy (Duncan, 2002). In so asserting the educational pitfalls of urban students of color, my colleagues placed the blame on the student, rendering her/him a deficit. Beyond a mention of the cultural bias of standardized testing, as they were benignly taught to say, they never critically examined the larger systemic dynamics that continually keep urban students of color at the periphery of success. They never acknowledged how the normativity of Whiteness perches itself as the exemplar of educational success while turning a blind eye to the institutional advantages that support White students’ academic success at the expense of others (Ladson-Billings, 1998; Lewis & Manno, 2011). Instead of listening to this disparaging rhetoric, I opened my
classroom door and ate lunch with any student who walked in.

At first, I thought the dialogues that centered on friendships, family, and relationships with other teachers were nothing more than pre-adolescent complaints about society. Yet, when I employed CRT, I realized these complaints were counterstories, rich with intimate knowledge of how my students of color struggle with power, marginality, and pain. These were intimate moments that allowed me to truly empathize, care, and reflect, such that it cultivated within me an authentic care (Valenzuela, 1999). In this revelation, I knew we must discuss race in the classroom. The continuous echo of “those teachers just don’t get me” was as much about race as it was about mere misunderstandings. But how was I going to develop a critical dialogue of race inside a K–12 urban classroom while under the intellectual surveillance of a scripted curriculum? In order to answer this, I stripped teaching down to some basic core elements: curriculum and standards, objectives, and instructional/pedagogical strategies.

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Racial Project #1: Curriculum & Standards

I knew I must incorporate a critically raced curriculum that counters the hegemonic silencing of race in textbooks (Apple & Christian-Smith, 1991; Takaki, 1993). If, as Gillborn (2006) articulates, race and racism leave an “imprint on virtually every aspect of life,” then curriculum is also impacted by race and racism (pp. 324–325). This is fortuitous because it warrants the application of CRT and critical Whiteness studies to unveil embedded racism in curriculum.

In CRT, the permanence of race is a state of fact. In acknowledging the fact of race, CRT and critical Whiteness studies assert that Whiteness gets so normalized that it becomes invisible inside educational policies (Gillborn, 2005). Just as an educational policy is not exempt from race, neither is the curriculum teachers employ. In fact, critical Whiteness studies demonstrate how the literary canon is replete with exertions of normalized Whiteness (Morrison, 1993). Because I have come to critically understand curriculum as a dehumanizing project that purports Whiteness to normativity and colorfulness to biased subjectivity (Ladson-Billings, 1999), I needed to strategically insert race and a critical analysis of Whiteness in each of my U.S. history lessons. Under a standards-based era, I needed to begin with the standards themselves.

For example, California History/Social Science Content Standard 11.4 indicates that students must trace the rise of the United States as a 20th-century world power; it recommends that one way to do so is to describe the Spanish-American War and U.S. expansion into the South Pacific. Knowing history textbooks are wrought with political purpose (Symcox 2002), I felt it essential to problematize the intentional one-sided account, or “master narrative,” by interjecting multiple perspectives (Takaki, 1993; Zinn, 2005).

Thus, in preparing a lesson on how the Spanish-American War and U.S. expansion to the South Pacific contributed to the U.S. world power role, I had the students read Memmi’s (1965) Colonizer and Colonized, while they read the textbook’s version of the account. Additionally, I provided excerpts from Vicente Rafael’s (1995) Discrepant History, which chronicles the inaccurate documentation of U.S. annexation of the Philippines. We paid specific attention to purposes behind why the annexation benefitted the U.S. (which met the standard), yet, we also focused on how Dean C. Worcester’s depictions of Filipinos as indolent, lazy, and culturally-retarded belied the widespread belief of White racial superiority and how these racist sensibilities impacted the decision to colonize these people of color (Sullivan, 1991) and then present them in cages at the 1904 St. Louis World Fair.

Racial Project #2: Critical Race Lesson Objectives

Nieto and Bode (2008) so warn that curricular insertions are not enough to address the pervasiveness of racism. As such, I drew from my teaching training in backwards design (Wiggins & McTigue, 2000; i.e., keeping the learning outcome in mind before proceeding further). I had to clearly explicate two lesson objectives, lest I be responsible for reproducing the same normative discourse that renders race irrelevant. Content objectives are the articulation of how the goals of this lesson meet the standardized content standard. Critical race objectives strategically and directly link the content objective to an

overarching CRT analysis of how oppressions of race, class, and gender are operating within that content itself. For example, if the content objective is that students will be able to describe the events, figures, and significance of the Spanish-American War, and the control of the South Pacific thereafter, in relation to the rising role of the U.S. as a world power, then the Critical Race Objective, which builds on it, is that students will be able to critically dialogue how mechanisms of race, racism, and White supremacy, and other forms of oppression, such as colonization, impacted the decision to annex the Philippines in order for the United States to become a world power.

Since clearly stated lesson objectives are key to ensuring standards-based instruction, the explicit inclusion of critical race objectives provides a directive on how to implement race dialogues. Acknowledging that critical social theory of race is committed to the production of transformative knowledge, it then becomes an a priori for teachers to test out new strategies not yet articulated in the Eurocentricity of standards-based curriculum. In fact, with respect to race dialogue, the strategic inclusion of critical race objectives produces the humanizing violence Leonardo and Porter (2010) encourage. Ergo, because curriculum violently silences race, it allows for the permanence of Whiteness; however, including critical race objectives into the pedagogy attacks and disrupts the invisibility of Whiteness in the curriculum, prompting racial justice and discourse.

**Racial Project #3: Pedagogies and Instructional Strategies of Race**

Curriculum and objectives would only go so far in cultivating race dialogues in my classroom because society strategically silences discourse of race. This “speech impediment” needed a pedagogical strategy to let students unlock what was once forced to remain silent in their hearts. Like Leonardo and Porter’s (2010) theory of humanizing violence via shared experiences of racism, I opted to use myself as a model in a strategy I call “critical race metacognition” (CRM).

Just as metacognitive “think alouds” in literacy instruction increase reading comprehension (Zimmerman & Keen, 1997), CRM is a cognitive schema students can apply to better understand race. I began with having my students review newsreels, videos, commercials, political cartoons, and print articles. For example, I showed a video clip of 2004’s *Crash*, where Ludacris and Larenz Tate critically dialogue how Black men are treated in a racist society. I often stopped the clip and queried: what is being said about Blackness and unsaid about the presumed innocence of Whites? My students then applied this thought process to McKinley’s Benevolent Assimilation speech on the colonization of the Philippines.

Through CRT, my students were better able to challenge the dominant racial ideology by applying it to their daily experiences of race. For example, a tearful Muslim-American student described being pushed into a pool and taunted as a “terrorist”; she initially assumed it was not an act of racism because “racism stopped after the Civil Rights Movement.” Her re-analysis differed at the end of the semester.

**Racial Project #4: Vocabulary**

As a content-specialty teacher, I know my students often struggle in understanding concepts when they do not have access to a helpful vocabulary, so I employed such terms *racial battle fatigue, racial microaggression, White supremacy*, and *counterstorytelling* to allow them better articulation of their personal accounts with racism. Therefore, I knew I had to teach a new language to engage in race dialogues, which thus behooved me to synonymize critical race language acquisition to instructional strategies of language acquisition for multilingual learners.

Hill and Flynn (2006) state that “teachers need to explicitly teach those content-specific terms that bring meaning to the lesson” (p. 104). By explicitly teaching critical race vocabulary, students acquired new vocabulary to better achieve the goals set forth by the critical race lesson objective. To ensure my students used vocabulary in meaningful ways, I had to provide ample opportunities to model, read, write, talk, and listen to each other in this newly-learned vocabulary.

**Implications for Urban Teaching and Teacher Education**

As hooks (1994) argues, teaching can be a healing praxis for both the educator and her students, a healing that has the possibility to stop the tears. As teachers are not robotic extensions of a scripted curriculum; we acknowledge that teaching goes beyond a strict job description. We are cultivators of humanity, and we recognize that those tears break the heart of our hope. And this is a painful burden no student should even have to suppress.

It is essential to build an arsenal of pedagogical, curricular, and ideological tools so that teachers can always be a part of the humanizing project of racial justice, one where dialogues of race can take place free from the violence of colorblind racism. However, such projects must not strictly focus on urban students of color, since they are erroneously pathologized as
It is essential to build an arsenal of pedagogical, curricular, and ideological tools so that teachers can always be a part of the humanizing project of racial justice, one where dialogues of race can take place free from the violence of colorblind racism.

Furthermore, we must consider how to engage in race-conscious teaching in systemic ways. For example, how can teachers systemically advocate for racial justice in faculty meetings, parent or community groups, and district-wide planning, initiatives, and new school development? Perhaps advocating for district representatives for racial justice will ensure that a racially-just agenda is enacted in both district and local levels. Or perhaps race understanding can be increased by enforcing continuous professional development on racism and Whiteness in education. Also, incorporating racial justice in school missions and vision breaks the silence. Until schools take an active stance to systematically and openly address race, race will continue to be silenced. And in that silence, the tears of urban students of color will once again be ignored.

Also, the recycling of White normative rhetoric, such as missionary/savior perspectives or strategic silencing of critical race knowledge, ostracizes the few teachers of color who do matriculate into teacher education, while creating disingenuous perspectives of urban students of color. White teacher candidates must first be exposed to both critical Whiteness studies and critical theories of race, lest they inadvertently recycle White normativity. As Helms (1990) posits, one can only guide others in racial identity development if, and only if, they first take that journey themselves. As such, White teacher candidates must first learn about Whiteness beyond mere recognition that they are White and therefore hold privilege. They must be able to articulate the socio-historical, political, economic, and emotional consciousness that led Whites to have privileged status to then “know themselves.” Doing so will better prepare them for understanding their urban students of color. Second, White teachers candidates must learn to re-learn their emotions. Instead of resonating in guilt, ferociously denying the saliency of race or crying emotional angst, they must be re-directed to racially-just projects (i.e., it is okay to be angry, sad, and guilty, but then transform those feelings to projects of antiracism, despite the discomfort to feel again).

Conclusion

Never swayed by the harsh realities of living a racialized life as an urban student of color, urban teacher of color, and now as an urban-focused teacher educator of color, I realize that my students’ tears are a continuance of mine, the result of the permanence of race. CRT, critical Whiteness studies, and critical social theory of race reminded me that my tears are not of my own; rather, they are part of a larger cry so often ignored in education. And that, in itself, are tears worth telling.

References


ROSSIER USC SCHOOL OF ED TOOLS FOR TEACHING DIVERSITY

Tools for Teaching Diversity

The following resources can be located at:  https://rossier.usc.edu/tools-for-teaching-diversity/

December 17, 2012

Rossier Faculty Council’s Diversity Committee is charged with: supporting dialogue with faculty about issues of diversity and equity, and seeking faculty input about new and ongoing priorities; working with faculty search committees to help develop a diverse candidate pool; and assisting the dean’s office, faculty council, and concentration chairs in faculty mentoring.

Overview

Welcome to the resources for teaching and learning diversity! This page was developed by the diversity committee of the Rossier School of Education in order to help faculty across all courses and in all programs better teach the concepts of diversity. Diversity is one of the four pillars of our School’s mission and values and is supposed to be integrated across all the curriculum and student experiences. The resources below help faculty in this effort and provide not just readings for course, but also activities and resources to use in classes.

Diversity can be challenging, particularly concepts like privilege, identity and consciousness raising. We provide a focus on challenging topics that emerge and help identify ways to address these challenge areas.

The site is organized so the many facets of diversity can be explored in courses – gender, sexual orientation, race, social class, disabilities and the like. We hope that these varying resources help provide the platform to teach diversity in complex and multi-faceted ways.

We hope this can be a resource for not only the school but also our partners across the globe as they think about and teach concepts of diversity in various disciplines and school contexts.

Inclusive Teaching Strategies

•  Creating Inclusive College Classrooms (University of Michigan)
•  Managing Hot Moments (Harvard University)
•  Managing Student Resistance (University of Virginia Commonwealth University)
•  Creating a Safe and Engaging Classroom Climate (University of Wisconsin – Whitewater)
•  Diversity Issues for the Instructor: Identifying you own Attitudes (University of Michigan)
•  Identifying and Responding to a Bias Incidents (Teaching Tolerance.org)
•  Teaching in a Diverse Classroom (USC)

Racial, Ethnic, and Cultural Diversity

•  An Approach for Teaching Diversity: A Dozen Suggestions for Enhancing Student Learning (University of Wisconsin – Whitewater) Tools for Teaching
• Diversity and Complexity in the Classroom: Considerations of Race, Ethnicity, and Gender (UC Berkeley)
• Resources for Multicultural Teaching and Learning (University of Minnesota)
• Teaching in Racially Diverse College Classrooms (Harvard University)
• Working to Improve Schools and Education (WISE) – African American Experiences of Race and Racism in U.S. School (Ithaca College)

Gender Issues
• Sensitivity to Women in the Contemporary Classroom (Harvard University)
• Working to Improve Schools and Education – Gender Issues (Ithaca College)

Sexual Orientation
• Gay, Lesbian, and Straight Education Network
• Teaching Challenges: Sexual Orientation in the College Classroom (AAC&U)
• Working to Improve Schools and Education (WISE) – Sexual Orientation (Ithaca College)

Disabilities
• Teaching Students with Disabilities (Vanderbilt)
• Center for Excellence in Teaching – TA Resources Disabilities Overview (USC)
• Help for College Students with Disabilities (Wrightslaw)

Religious Diversity
• PBS Thematic Teaching – Religious resources (Videos and Links)
• Arab American and Muslim Culture, Experiences, and Issues (Ithaca College)
• Diversity and Democracy (AAC&U) – Religious Diversity
• Understanding and Promoting Religious Pluralism on College Campuses (UCLA)

Articles related to Teaching Diversity
• Articles on Teaching For Diversity (University of Michigan)
• Articles on Promoting Diversity (University of Michigan)

USC On-Campus Resources
• Rossier School of Education
  Ed.D. Office
  Center for Urban Education
Articles on Teaching for Diversity

Laura L.B. Border and Nancy Van Note Chism,
Editors New Directions in Teaching and Learning, 1992, Volume 49

Adams, M. Cultural Inclusion in the American College Classroom.

The traditional college classroom has a distinct culture that often constrains the success of students from other cultural backgrounds. Traditional culture has remained unnoticed because the mismatch with student’s culture is never identified, and there is a general absence of conscious cultural identity.
among European American students. The call for multiculturalism depends on faculty's acceptance and implementation, but it is difficult for faculty to see beyond their own acculturation. A college teacher's explicit and ongoing attention to the cultural assumptions behind many aspects of classroom teaching will facilitate the learning process for students from all cultural traditions. This does not necessarily mean dismantling of traditional teaching; rather, teachers could incorporate flexible, alternative teaching modes in order to engage the broad range of diverse, cultural derived orientations to learning.

Anderson, J.; Adams, M. Acknowledging the Learning Styles of Diverse Student Populations: Implications for Instructional Design.

Issues regarding teaching effectiveness and excellence are increasingly tied to issues of diversity; therefore, one should be examining the interplay of social and cultural diversity with learning styles, curricular content, and instructional styles. Effective teaching cannot be limited to delivery of information. Studies that have examined different groups’ orientations to cultural values support the contention that non-traditional groups who share common conceptualizations about basic values, beliefs, and behaviors exhibit similar socialized differences and stylistic learning preferences. The authors use, as an example, Kolb’s model of experiential learning to show how teachers can develop a multicultural teaching repertoire that takes into account cultural style differences. While identification of styles with particular social and cultural groups helps alert teachers to important differences, a full range of instructional strategies should be employed.

Border, L.; Chism, N. The Future is Now: A Call for Action and List of Resources.

The authors list programs and contact persons for “train-the-trainer” strategies for multicultural teaching. They also list print and video resources on multicultural teaching in higher education.

Collett, J.; Serrano, B. Stirring It Up: The Inclusive Classroom.

Looking at the experience of institutions where women and minorities have been either the sole constituency or the vast majority provides many lessons in academic success. The greater success of students in these institutions is due to common factors: a supportive atmosphere, respect for cultural identity, high expectations, positive role models, and vigilance against bias. Multicultural education on mixed campuses, on the other hand, is currently failing to address needs of many students. The worst problem is the resistance and inability of predominantly white male faculty to recognize and respect gender and cultural differences among students. In this article, the authors provide a model of cultural continua, with one axis reflecting a continuum of cultural experiences embedded in home culture at one end and mainstream culture at the other end. The cross-axis is a continuum of English proficiency. Understanding in which quadrant a student falls can help teachers adjust their instructional approaches to meet that student’s needs. Faculty can also place themselves along the continua, to become aware of their own cultural embeddedness and move away from it to better communicate with students and other colleagues. The task of progressing to a truly multicultural curricula and classrooms requires institutional and personal transformation because diversity challenges the structure of the disciplines.


The authors describe two feminist classrooms where the instructors’ and students’ relationship to mastery, voice, authority, and positionality are explored. An understanding of these helped the teachers construct their alternative pedagogies. In the traditional classroom, teachers’ pedagogical choices are
the guiding theories and worldview of a particular discipline. However, feminist theorists, as well as postmodernists, argue that truth is gendered, raced, and classed. It is also dependent on context, including the context of the classroom. By addressing issues of mastery, voice, authority, and positionality, each teacher in the two feminist classrooms repositioned the relationships among herself, the students, and the material, away from herself as authority and toward learning as a function of complex interactions among teacher and student voices. These choices had different effects on different students. The authors conclude that feminist approaches to pedagogy provide alternative ways of attending to the multiplicity of student backgrounds and the constantly expanding set of perspectives to contend with and honor.

Sadker, M.; Sadker, D. *Ensuring Equitable Participation in College Classes.*

Interactive teaching, for all its benefits, has the potential for interjecting subtle bias into the college classroom. Teachers are more likely to interact with white male students than with female or minority students. Boys get more attention because they grab it. Teachers, however, are often unaware of the inequities. Informal segregation, through seating and group work patterns, for example, also intensifies inequitable participation. This is usually done by students, but a teacher rarely intervenes to integrate seating and group work, especially in higher education. Segregated patterns influence the distribution of teacher attention. The authors describe an equity training program for faculty that focused on eliminating inequitable instruction. Some of the strategies they recommend include: (1) objective coding – a frequency count of teacher-student interactions that takes into account race and gender of students whom the teacher calls upon, to see what the distribution of teacher’s attention is; (2) increased wait time; (3) becoming an intentional teacher – engaging the silent students; (4) desegregation of student seating; and (5) use of teaching tactics such as shuffling name cards or moving around the room.

Schmitz, B.; Paul, P.; Greenberg, J. *Creating Multicultural Classrooms: An Experience-Derived Faculty Development Program.*

Campuses nationwide are struggling to find effective and appropriate responses to diversity in the classroom, with many clinging to the traditional and naive assumptions that the classroom is a value-neutral space. Because of the differential rates of students’ success in traditional classrooms, however, the issue of classroom climate is raised. The authors state that a multicultural classroom creates the potential for a fully effective learning climate. They describe the development of a program at the University of Maryland at College Park, which focused on the improvement of undergraduate women’s education and of the classroom environment for all students. The authors discuss the assumptions, process, and key decision points that guided the development of their Classroom Climate Project. “Decision Points: included (1) articulating a program rationale, (2) choosing a theoretical framework for development programs, (3) deciding on the content of the development program, (4) deciding on a pedagogical approach and testing the model, (5) developing formats and scheduling, and (6) evaluating the success of the programs. Key components include a needs assessment, program support, resource development, faculty/TA development, and evaluation.


This chapter presents a survey of eight universities’ programs for helping faculty and teaching assistants meet the instructional needs brought about by changing campus populations. Each institution has made
conscious choices about target groups to be covered in sessions designed to increase sensitivity. Most programs emphasize racism and sexism; other issues include homophobia, xenophobia, heterosexism, ableism, ageism, anti-Semitism, and classism. The eight institutions are: University of Colorado-Boulder, Harvard, University of Hawaii, University of Michigan-Ann Arbor, University of Missouri-Columbia, Ohio State University, Stanford, and University of Tennessee-Knoxville. The authors stress administrative support for multicultural programs, as the administrator’s commitment inspires participation and interfertilization.

**Articles on Promoting Diversity in College Classrooms**

Maurianne Adams, Editor  
*New Directions in Teaching and Learning, 1992, Volume 52*

Curtis, M.S.; Herrington, A.J., *Diversity in Required Writing Courses.*

Today’s challenge, for students and teachers of writing alike, is to construct a social identity on which we can all agree amid a growing confluence of identities, both individual and ethnic. The objective of teaching writing, the author’s state, is for writers to be able to move confidently and thoughtfully through private meaning-making to significant communication with others. In this chapter, the authors describe a multicultural Basic Writing course that they designed, which included significant books by writers from outside of the Anglo American canon. Basic Writing was designed to be more inclusive and student-centered; student writing was the principal activity and student writings the principal texts. The authors comment that in exploring the multicultural content of the works studied, they became conscious of their own interpretive processes, and it was these processes, rather than the interpretations, that they meant to pass on to students.


In recent years, higher education has seen a shift in the evolution of approaches to social diversity on campus. Instead of expecting students from underrepresented social groups to conform to preexisting college norms, faculty and administrators now seem to be open to new perspectives and expectations that these students bring with them to the campus and classroom. Educators are trying to understand how each group views the world as a function of its experiences with social injustice and the influence of cultural orientation. In this syntheses of their work on racial identity development, the authors outline five stages that describe predominant modes of consciousness or worldviews that Black and Whites go through in developing their identities. The authors write that understanding the racial identity development of Black and White Americans assists educators in making informed responses to challenging racial dynamics on college campuses.


Comparison of the experiences of three public universities in the northeast and Midwest in changing from monocultural to multicultural campuses suggests intrinsic barriers to change and common elements in organizational and curricular development. Lessons were learned for organizational administration and governance, college environment, and faculty development.

This chapter describes a four-part model of the dynamics of teaching and learning that have particular relevance to social and cultural diversity in college classrooms: (1) Students – knowing one’s students and understanding the ways that students from various social and cultural backgrounds experience the college classroom. (2) Instructor – knowing oneself as a person with a prior history of academic socialization interacting with a social and cultural background and learned beliefs. (3) Course content – creating a curriculum that incorporates diverse social and cultural perspectives. (4) Teaching methods – developing a broad repertoire of teaching methods to address learning styles of students from different social backgrounds. This model can be used by teachers as a framework, organizer, and diagnostic tool for classroom experience. It can also be used as a framework for faculty development workshops, as well as help manage the extensive new literature about multiculturalism in higher education.

Noronha, J., *International and Multicultural Education: Unrelated Adversaries or Successful Partners?*

This chapter examines fundamental differences between the fields of international and multicultural education. Even with the development of ethnic studies in the 1970s, international education continued to be the accepted and familiar approach to diversity. The author states that this is not surprising, given that international and multicultural education are seen as separate and unrelated to each other. She suggests, however, that there are significant commonalities for cross-fertilization and collaboration. Effective, high-quality teaching for a diverse population, she states, operates on the same principles as good teaching practice for all students. The author outlines several successful strategies in teaching and working with multicultural and international students.

Schmitz, B., *Cultural Pluralism and Core Curricula.*

Across the country, faculty members are redefining core knowledge and skills to include learning about U.S. pluralism and world cultures and experimenting with new pedagogical approaches that engage cultural multiplicity in effective ways. These changes have not gone uncontested, however. In this chapter, the author explores institutional and conceptual issues central to addressing cultural pluralism in the core curriculum and describes practices that have proved useful to faculty members developing or revising courses or planning new curricula. Some of the curricular solutions that the author describes include: multiple centers, which allow different groups and traditions to occupy the center of attention for specific times, to be studied on their own terms; and new pedagogies (such as feminist and black studies pedagogies) that seek to build on experiences familiar to specific student populations.

Weinstein, G.; Obear, K., *Bias Issues in the Classroom: Encounters with the Teaching Self.*

Handling intergroup bias issues in the classroom may stimulate instructor anxiety but also provides opportunities for self-understanding. This chapter describes some commonly shared fears that faculty have about intergroup bias issues. These include: confronting their own social and cultural identity conflicts; having to confront or being confronted by their own bias; responding to biased comments; having doubts and ambivalence about their own competency in handling bias issues; needing learner approval; and, handling intense emotions and losing control. An instructor’s ability and willingness to anticipate and monitor her or his intrapersonal dynamics about the teaching situation is a necessary
component of classroom preparation. The authors offer some coping strategies and summarize personal attributes of the effective cross-cultural trainer that can be generalized to any teaching role.
Eight Actions to Reduce Racism in College Classrooms

BY SHAUN R. HARPER AND CHARLES H. F. DAVIS III

Faculty members sometimes unknowingly or inadvertently contribute to a racist climate in their classrooms. But they can take steps to address racism more effectively in their teaching.
ast year, at dozens of colleges and universities across the United States, students protested institutional unresponsiveness to pervasive issues of racial inequity. Most media attention disproportionately focused on the popularity of the protests as opposed to the actual issues underlying campus unrest. For example, instead of deeply exploring the experiences that ignited demonstrations among students at the University of Missouri, journalists wrote mostly about the football team’s threat to cancel its game against Brigham Young University, the potential financial implications of the team’s activism, and the eventual resignations of the system president and the chancellor of the university’s flagship campus. Similarly, news coverage of protests at Yale University concentrated less on students’ frustrations with the university’s climate of racial exclusion and more on e-mails about potentially offensive Halloween costumes and perceived threats to free speech.

It is important for faculty members to understand that students were protesting racism. It is also essential that professors recognize how they, often unknowingly and inadvertently, say and do racist things to students of color in the classroom. Student uprisings were as much a response to negative experiences with their peers and administrators as they were expressions of frustration with the cultural incompetence of their teachers. Students of color did not suddenly start experiencing racist stereotyping and racially derogatory comments, disregard for the thoughtful integration of their cultural histories in the curriculum, and threats to their sense of belonging in college classrooms during the 2015–16 academic year. We know from our work as scholars at the University of Pennsylvania’s Center for the Study of Race and Equity in Education that these problems are long-standing.

College presidents, provosts, deans, and other institutional leaders hire researchers from the Center for the Study of Race and Equity in Education to spend three to four days on their campuses doing racial climate assessments. At some places we are asked to focus on racial and ethnic differences

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among faculty and staff members in their feelings of inclusion, respectability, and opportunities for fair and equitable professional advancement, as well as on racial tensions in workplace settings. But on most campuses, administrators ask us to assess the racial climate for students—feelings of inclusion and belonging across racial and ethnic groups, the extent to which students interact substantively across difference, where and what students learn about race, appraisals of institutional commitments to fostering inclusive environments, and characterizations of the supportiveness of classrooms and other spaces. We have done these studies at more than thirty campuses across geographic regions and institutional types, ranging from Portland Community College to Princeton University.

Presented in this article are eight actions faculty members must take to respond more effectively to racism in college classrooms. Findings from our center’s student-focused climate studies inform these recommendations. To be sure, eight simple acts will not completely eradicate or even sufficiently address the classroom-related experiences that students of color consistently describe in our focus-group interviews. Nonetheless, participants in our studies say it would greatly improve their experiences if their professors did the following eight things.

1. Recognize your implicit biases and remediate your racial illiteracy.
Students we interview almost always tell us the majority of their instructors (sometimes including faculty members of color) are insufficiently skilled to teach learners from a range of racial groups and cultural backgrounds. As explained in Shaun R. Harper’s forthcoming book, Race Matters in College, faculty members are byproducts of their own educational upbringings. Too few of us were ever afforded opportunities to discuss or meaningfully learn about race in our K–12 schools, undergraduate studies, or doctoral programs. Consequently, there were not enough opportunities to examine and correct the ways we have been socialized to think about the racial “other” or to develop the skills we would ultimately need to teach contemporary college students. Furthermore, too many of us entered the professoriate having taken, at most, only one formal course on college teaching in our graduate programs—and in most instances, that course did not focus nearly enough on race, raise our consciousness about our implicit biases, expose us to authors of color and texts from different cultural points of view, or equip us with the range of skills needed to manage racial conflicts that occasionally occur in classrooms.

Recognizing one’s implicit biases is a crucial first step; the seven other actions we recommend rest heavily on this one. Project Implicit at Harvard University offers free online tests that help reveal how we have been socialized to view people from racial backgrounds that are different from our own (see https://implicit.harvard.edu). Results from these tests could be useful to faculty members, as they might reveal deeply held assumptions that play out in embarrassing, destructive, and sometimes hurtful ways in college classrooms. In addition to simply identifying biases, professors must also work in purposeful ways to acquire racial literacy and learn new teaching methods. Ten great books that can help faculty members do this are listed at the end of this article. We recommend reading race-focused publications and discussing them in groups. Faculty members in a department would benefit from talking with one another about ways to deliberately integrate into their teaching practices many of the recommendations that experts have published.

Attending sessions at conferences outside of one’s discipline that are focused on student success and teaching diverse learners (for example, NCORE—the National Conference on Race and Ethnicity in American Higher Education) will expose faculty members to content and strategies they will have encountered nowhere else along their professional journeys. Our center offers Penn Equity Institutes, five-week virtual education experiences for twenty faculty members within a department or school or across a campus. Institute participants learn how to talk more comfortably and honestly about race with their colleagues, foster racially inclusive classroom environments, and employ a range of other skills that student participants in our climate studies tell us they wish their professors had (see http://www.penninstitutes.org).

2. Don’t be surprised when a black male student writes well.
Media we have consumed throughout our lifetimes inescapably shape ideas and expectations about particular racial groups that we bring to classrooms. For instance, young black men are commonly portrayed as rappers, athletes, and criminals—rarely as scholars. Given this, black men and other students of color in our studies tell us their white professors are too often visibly surprised when they make thoughtful statements in class. Instructors also accuse them of cheating when their papers are well written and they perform exceptionally well on exams. In our conversations with them, a surprising number of faculty colleagues have justified these actions by saying,
“Students from these backgrounds typically don’t do well in my courses.” That does not mean every student from that racial or ethnic group is incapable of success; to assume so is racist.

3. **Stop expecting the Latina student to speak for all Latinos.**

When urban ghettos, poverty, or just about any issue pertaining to people of color arises in classroom discussions, professors and peers expect the person of color to be the spokesperson. Expertise is presumed, which often results in students of color being forced to teach their professors and peers about race. Having to represent an entire diaspora of people (an expectation also placed on Asian Americans and blacks) is daunting for Latino students. Also troubling to them is the assumption that every person from a particular racial or ethnic group grew up in the inner city or in poverty.

4. **Quit thinking all Asian American students are the same.**

Illinois State University professor Nicholas Daniel Hartlep writes masterfully about the “model minority myth”: the presumption that all Asian Americans are math and science geniuses who do not require any academic support or resources. Asian American and Pacific Islander (AAPI) participants in our climate studies consistently tell us their professors and others do not acknowledge the racism they experience because AAPIs are usually at the top of enrollment, performance, and attainment metrics, at times ahead of white students. These statistics, however, say nothing about their experiences. They also mask troubling educational outcomes among Cambodian, Hmong, Laotian, Samoan, and other AAPI groups. Institutional actors routinely fail to disaggregate data and distinguish ethnic, class, language, and cultural differences among AAPI students. Also, lower-income AAPI students tell us they are usually not selected to work in professors’ labs or collaborate with faculty members on research projects; we hear the same stories from many of their Native American, black, and Latino peers.

5. **Be aware that stereotype threat may be occurring among some students of color.**

Renowned psychologist Claude Steele introduced the term **stereotype threat**: the anxiety and resultant behavioral response that ensues when a student of a socially stigmatized group encounters stereotypes that those outside the group hold about them. Steele’s research shows how stereotype threat can negatively affect academic performance. The lone Native American student who wishes to contribute to class discussions may be rehearsing over and over in her head what she is going to say because she recognizes that her white professor and peers are likely to attribute her statement to all Native Americans. Moreover, she is aware that many whites do not usually view her people as intelligent and think she was admitted to the university only because of affirmative action. Hence, whatever she says has to be eloquent, perhaps perfect; this pressure distracts her. Meanwhile, her white classmates are saying whatever they want and benefiting more fully from their engagement in class discussions.

6. **Meaningfully integrate diverse cultures and peoples into the curriculum.**

Put plainly, students of color are tired of reading one-dimensional literatures that exclude their cultural histories and fail to acknowledge their humanity. They want authors and texts from diverse perspectives to appear on syllabi and be substantively engaged in class. Many instructors are familiar only with the racially exclusive scholarship to which they were introduced in their doctoral studies and the mostly white scholars their fields privilege and celebrate as experts. Hence, they tend to teach those texts and authors. There are expert professors of color in just about every academic field. There also are white scholars who conduct research and publish routinely on people of color. Faculty members should assign publications these professors have written and invite their recommendations of other works that might be included. One way to do this is through an external review of syllabi from courses offered in a department. The department chair could send packets of syllabi to experts in the same field at other institutions and ask colleagues to assess the inclusion of diverse perspectives and offer recommendations for improvement.

7. **Responsibly address racial tensions when they arise.**

Participants in our studies say they are disappointed when moments of racial tension occur in classrooms and the instructor frantically responds by immediately shutting down conversations. Many students actually see these moments as potentially powerful learning opportunities, specifically for the offending student. But in most instances, students of color are left alone to grapple with their classmate’s racially offensive statement or action. They wish their professors knew how to make better educational use of these moments. They also want faculty members, at minimum, to hold white students accountable for saying outrageously offensive things. Censorship and disciplinary action are not what they tell us they desire. Instead, they want...
white classmates at least to be challenged to think critically about how their statements affect others. Several NCORE sessions focus on practically addressing racial tension in productive ways, as do modules in our Penn Equity Institutes.

8. **Recognize that you and your faculty colleagues share much responsibility for racial inequities.** Analysts usually attribute racial inequities in persistence and performance to students’ insufficient preparation for college-level academic work, to disengagement and a lack of student effort, and, sometimes, to the erroneous assumption that white people are genetically smarter. Students of color repeatedly tell us in climate studies that a more expansive set of factors and conditions lead to their underachievement: racist encounters in classrooms, culturally exclusive curricula, low faculty expectations, and comparatively fewer opportunities for substantive engagement with white professors outside of class, just to name a few. University of Southern California professor Estela Mara Bensimon and her colleagues in the Center for Urban Education developed the Equity Scorecard, a dynamic collaborative inquiry and institutional change process that helps faculty members and administrators discover how their practices help sustain racial inequities in student outcomes (see http://cue.usc.edu/tools). Participants in our studies want their instructors to assume greater responsibility for achieving racial equity goals; the Equity Scorecard could be enormously useful in this regard.

**CONCLUSION**

Exclusionary classroom experiences and racist encounters involving faculty members are among the many racial problems college students have been protesting. On several campuses they were asking institutional leaders to invest more resources in cultural centers and multicultural affairs offices, hire more professors of color, and retain and elevate the status of ethnic studies programs. But they were also asking their instructors to be less racist and to become more highly skilled at teaching diverse learners—the same things they say when we ask in interviews what they expect from their institutions. Lists of demands from last year’s protests confirm that students of color are calling for greater representation in the curriculum, as well as more culturally conscious and racially literate teachers (see http://www.thedemands.org). In addition to the actions recommended above, developing racial literacy from publications and attending conferences are critically important to creating safer, more inclusive classroom environments for diverse learners. Without substantive investments from college faculty, racial climates will surely worsen and institutions of higher education will continually fall short of making good on diversity-related promises conveyed to students through mission statements, in presidential speeches and admissions materials, on websites, and elsewhere.

**RECOMMENDED BOOKS**


IV. Critical Thinking & Critical Pedagogy

- An Overview of How to Design Instruction Using Critical Thinking Concepts
- Basic Principles of Critical Pedagogy
- College-Wide Grading Standards
- Critical Thinking Class: Grading Policies
- Grade Profiles
- Socratic Teaching
- Valuable Intellectual Traits

- Video & Podcast on Cult of Pedagogy (https://www.cultofpedagogy.com/10-equity/)
An Overview of How to Design Instruction Using Critical Thinking Concepts

The Logic of Instructional Design

Instructional design involves two deeply interrelated parts: structures and tactics. In this article we focus on structures. Structures involve the "what" of the course: What am I going to teach? What content am I going to teach? What questions or problems will be central to the course? What concepts will be fundamental? What amount of information will students need to access? What point of view or frame of reference do they need to learn to reason within? What is my concept of the course? What overall plan shall I adopt? What requirements shall I set up? What grading requirements? What performance profiles? etc...

Tactics involve the "how": How am I going to teach so as to make the structures work? How am I going to get the students to be actively involved? How am I going to get them to develop insights, understandings, knowledge, and ability that are essential? How am I going to get them to learn to "reason" their way to the answers to questions in the field?

Five Important Structural Determinations
That Set the Stage for Everything Else

We suggest that for every course you teach, there are five defining dimensions you should carefully think through. You should note that each of these "structures" have a "tactical" dimension to them. That is, something of the "how" (you will cover) is implicit in these decisions as to "what" (you will cover). They are:

- your concept of the course,
- the general plan for implementing that concept,
- the requirements the students must meet,
- the grading policies in the course (when applicable), and
- performance profiles (that correlate with the grade levels).

The students, in other words, should know from the beginning what in general is going to be happening in the course, how they are going to be assessed, and what they should be striving to achieve. To put it yet another way, the students should know, from the beginning, what they are going to be doing most of the time-this should not be passive listening-and what exactly is expected of them in that doing. The aim of the course should be carefully spelled out. It is usually helpful to contrast the aim with that of standard didactically taught courses. It is useful to ask oneself what kind of reasoning is going to be central to learning the content (historical, mathematical, biological, literary, etc...)

In addition to a written syllabus, the students should be given an orientation to the mechanics of the course (as you were given an orientation to the mechanics of this seminar). This orientation should include an oral explanation of the concept of the course, the plan, the requirements, the performance profiles and any other salient features of the design. The overall logic of the course should be made as clear as possible. You might consider using a "student understandings" sign-off sheet (a model will be presented to you).

Studies have indicated that, on average, 90% of the decisions made about instruction are a result of the textbook chosen. But textbooks should not drive instruction, since most textbooks are not structured to enhance critical thinking in the subject. Our decisions made
about the structure and tactics of our courses should be a result of our concept of the course, of our most fundamental objectives in teaching the course.

Once we have the most basic structure (and substructures) of our course decided, we must focus on the tactics we will use to drive that structure home, to enable that structure to be effectively achieved. One can divide tactics in two different ways. The first way is into daily tactics (what we will be doing everyday) and episodic (what we will do from time to time). The second way to divide tactics is into complex and simple. Socratic instruction, teaching students how to read critically, devising an oral test format, developing tactics for student self-assessment: these are all complex tactics. As the complex ones have multiple parts and often require an extended period of time to be carried out, they are generally harder to master. On the other hand, most simple tactics, like calling on students who don’t have their hands up, asking that students summarize what other students have said, requiring students to state the purpose of an assignment or to express the question on the floor-are rather easy to learn and can take up much less time.

To illustrate these two distinctions, some instructors may choose to do some Socratic instruction every day, or simply to use it episodically, or just to lead off units. Designing an instructional day around an activity (with Task, Purpose, Question, and Tactic-see seminar samples) is another complex tactic, but it is one that may be used daily. Complex daily tactics may involve a variety of different simple tactics from day to day-see the teaching tactics listed in your workshop assignments.

In sum, instructional design involves a teacher thinking about instruction in both structural and tactical ways. Overall structural thinking—for example, about the concept for the course—can help free a teacher from the Didactic Model into which we have been conditioned and the ineffective teaching that invariably accompanies it. Simple and complex tactical thinking can provide the means by which we can follow through on our structural decisions in an effective way. Our teaching will not be transformed simply because we philosophically believe in the value of critical thinking. We must find practical ways to bring it into instruction, both structurally and tactically.

{This article is adapted from the resource: Critical Thinking Basic Theory and Instructional Structures. (https://www.criticalthinking.org/store/products/critical-thinking-basic-theory-and-instructional-structures-handbook/148)}

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Basic Principles of Critical Pedagogy

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Abstract. This article is intended to give some context to the discussion of critical pedagogy (CP) as one of the post method approaches to language teaching. It adopts the Frankfurt school principles as its main source in search for a more just society. It relates the school context to the social context in which it is embedded. It stresses empowering learners to think and act critically with the aim of transforming their life conditions. Although this approach has recently gained momentum, few studies have exclusively addressed it. Therefore, the present study aims at exploring major themes in CP including the liberatory and problem posing education, teacher and student roles, praxis as the reflection on the world, and dialogism and to make suggestions for application of this approach in ELT classrooms. To achieve this aim, available books and articles written on the subject were scrutinized. The results showed that the transformative CP, despite being a new and useful approach, is barely explored and attended to in Iranian educational system.

Key words: critical pedagogy, post method approach, critical theory, history of language teaching, political education, praxis.

1. Introduction

Critical Pedagogy (CP) is an approach to language teaching and learning which, according to Kincheloe (2005), is concerned with transforming relations of power which are oppressive and which lead to the oppression of people. It tries to humanize and empower learners. It is most associated with the Brazilian educator and activist Paulo Freire using the principals of critical theory of the Frankfurt school as its main source. The prominent members of this critical theory are Adorno, Marcuse, and Habermas. Critical theory is concerned with the idea of a just society in which people have political, economic, and cultural control of their lives.

Thinkers of critical theory believe that these goals are satisfied only through emancipating oppressed people which empowers them and enables them to transform their life conditions. It is actually the starting point for critical pedagogy. The major concern of CP is with criticizing the schooling in capitalist societies. As Gor (2005) puts it, the major goals of CP are awareness raising and rejection of violation and discrimination against people.

CP of Freire like critical theory tries to transform oppressed people and to save them from being objects of education to subjects of their own autonomy and emancipation. In this view, students should act in a way that enables them to transform their societies which is best achieved through emancipatory education. Through problem posing education and questioning the problematic issues in learners’ lives, students learn to think critically and develop a critical consciousness which help them to improve their life conditions and to take necessary actions to build a more just and equitable society. Thus, it can be said that CP challenges any form of domination, oppression and subordination with the goal of emancipating oppressed or marginalized people. As Kessing-Styles (2003) points out, CP is an educational response to inequalities and oppressive

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power relations which exist in educational institutions. Major authors associated with CP include Paulo Freire, Wolfgang Klafki, Michale Apple, Peter McLaren, Ira Shor, and Henry Giroux.

According to Hall (1995), language learning theory and teaching should focus on larger sociohistorical and political forces which reside in the social identities of people who use them. However, recent research on SLA, as Okazaki (2005) argued, has shown that classrooms are far removed from historical and social conditions. He also maintains that, as a consequence, researchers advocating examining sociohistorical and political aspects of language learning including, Benesch, 2001; Canagarajah, 1999, 2002; Morgan 1998; Norton, 1997; Norton and Toohey, 2004; Pennycook, 1999, 2001; Ramanathan, 2002, proposed an alternative approach - critical pedagogy - which they believed should be the heart of language teaching. It seems that CP in recent years has gained momentum. Evidence also comes from the large amount of practice done in this area, a large body of texts that explore it and the creation of a doctoral degree in CP (Brookfield, 2005). Despite receiving so much attention both in the past and recent years, it seems that few studies have exclusively aimed at examining major themes in CP. Thus, the present study aims to shed more light on major themes in CP including, education, teacher and student roles, praxis, and language and dialogue in CP.

2. CP and the Educational Process

The major goal of CP, as Vandrick (1994) claims, is to emancipate and educate all people regardless of their gender, class, race, etc. Gadotti (1994) also notes that pedagogy is of major interest for Freire by which he seeks to change the structure of an oppressive society. Critical pedagogy in Kanpol's (1998) terms rests on the belief that every citizen deserves an education which involves understanding the schooling structure by the teacher that would not permit education to ensue.

Freire (1970) distinguishes between banking education and problem posing education. In the traditional view of education, teachers are pillars of knowledge; they know everything and students know nothing. Teachers deposit knowledge in students and never ask them to question that knowledge. The teacher thinks, the students don’t. The teacher chooses the content, students comply with it. Teacher is authority and students are obedient to authority. Students in this model are receivers of knowledge. They receive, memorize and repeat. They are not asked to relate this knowledge to the current problems and injustices in society with the aim of improving the society. Accordingly, they get a passive role in this view. Freire (1970) refers metaphorically to the traditional view of education as banking model of education because it is like depositing of money in a bank. This model mirrors the structure of an oppressive society in which the oppressed and the oppressors are divided. It advocates fixation of reality. So it is a vehicle for continuing the political oppression and working against liberation or emancipation (Joldersma, 1999).

This model is rejected because teachers should concern about society and to give human beings the opportunity to critically reflect and act on the position within society. Joldersma (1999) criticizes this model on the ground that here knowledge is too packaged, complete and objective and easily transferable into passive students and depicts the world as static and unchangeable. In this model, students believe that power, authority and activity are held by the teacher and students are viewed as objects rather than human. So in Joldersma’s (1999) term, this model is dehumanizing because it creates oppressive passivity in students.

As an alternative to the banking model, Freire (1970) proposed a problem posing education which can lead to critical consciousness. According to Joldersma (1999), good teaching or problem posing pedagogy leads to the development of knowledge by the students themselves. Freire, in the 1960’, suggested that through a problem posing process literacy becomes immediately relevant and engaging by focusing on problematic issues in learners’ lives. Problem posing education, according to Freire (1970), involves uncovering of reality, striving for the emergence of consciousness and critical intervention in reality. This consciousness allows students to take the necessary actions to improve their life conditions (Freire, 1970). It is based on the realities of learners and their life situations. It shows people that they have the right to ask questions. In this process of problem posing, the teacher listens to students, then, he selects and brings known situations to students in codified forms, finally he asks a series of inductive questions regarding the discussion of the situation (Muhammad Kamarul Kabilan, 1999). Moreover, Nixon-Ponder (1995) maintains that, the learner undergoes five steps of problem posing respectively; describing the content of discussion, defining the problem, personalizing the problem, discussing the problem, and discussing the alternatives of
the problem. In different terms, Elias (1976) confirms that in problem posing model students are closely equal to their teachers regarding the problem under analysis and the developing knowledge. They exercise freedom and together with the teacher control the educational process. To Freire (1970), both students and the teacher are subjects in this process. The teacher uncovers reality and creates knowledge of the world. Students in this view develop power to critically reflect on the way they exist in the world and they "come to see the world not as a static reality, but as reality in process, in transformation" (Freire, 1970, p. 71).

Education in CP is thus a liberatory process. It means that it raises students’ consciousness, it prepares students to engage in a larger struggle and it also helps students develop a more accurate perception of their experiences, and it empowers students to challenge oppressive social condition and to work toward a more just society (Foley, 2007). The aim of education, according to Ares (2006), is not learning but learning that comes from critical examination of the social order which leads to action in service of social justice as the result of school learning. As Giroux (1998) suggests, education should make the students critically thinking citizens who can take their place in the conduct of democratic life. So it should occur in an environment connected to everyday life encouraging discussions conducted within the language and knowledge of the students (Foley, 2007).

3. CP and Politics

The most important theme in CP is the belief that education systems are political (Freire, 1970; Freire & Macedo, 1987; Giroux, 1997; Shannon, 1992; Shor, 1992). As McLaren (1989) asserts, the major concern of CP is the centrality of politics and power in our understanding of how schools work. To Freire (1985), education should lead to transforming action and it is a political praxis which constantly serves to liberate human. Good teaching should aim at political transformation for the purpose of justice (Joldersma, 1999). Kessing-Styles (2003) also confirms that CP is concerned with social justice and develops practices capable of transforming oppressive institutions or social relations largely through educational practices. Freire (cited in Gur-Ze'ev, 1998) views education as political practice in the control of language and consciousness as a condition for the subjection of individuals and groups by the rulers. To him, education is an aspect of the relation between critique and domination. He refuses the ruling group’s claim that schools distribute knowledge in an objective and neutral manner. To Giroux (1997), it is essential to make everyday experience problematic and critical by revealing its hidden political assumptions. He maintains that, this critical understanding by empowering students to develop the courage to participate in their self formation has a liberatory purpose. He also asserts that higher education should engage in political education by “teaching students to take risk, challenge those with power, honor critical traditions, and be reflective about how authority is used in the classroom” (p. 265). Needless to say that, the political view helps learners’ growth in society. “Lacking a political project, the role of the university intellectual is reduced to a technician engaged in formalistic rituals unconcerned with disturbing and urgent problems that confront larger society” (Giroux, 1997, p. 265). Norton and Toohey (2004) also point out that in ESL context both language learning and language teaching are political processes. Similarly, Kessing-Styles (2003) asserts that social and political analysis of life should be at the center of curriculum. That is, all decisions regarding the sort of curriculum that should be followed, the kinds of books, language used and people hired are all political (Degener, 2001).

4. Curriculum and Authentic Materials

Curriculum in CP is based on the idea that there is no one methodology that can work for all populations (Degener, 2001). As Bartolome (1996) also maintains, there is no set curriculum or a program because all decisions related to curricular and material to be studied are based on the needs and interests of students (Giroux, 1997; Shor, 1992). Degener (2001) also points out that the curricular is framed through the use of student experiences and realities of their lives. This curriculum is transformative, that is, it fosters students’ acquisition of the necessary strategies and skills that help them become social critics who are to make decisions which affect their social, political, and economic realities (Giroux & McLaren, 1992). Kessing-Styles (2003) also confirms that CP covers understanding curriculum as political text at the center of which, she believes, lies the social and political critics of everyday life.
CP lesson plan should be based on authentic materials such as TV, commercials, video movie, etc. which are representative of the culture that are to be examined by the students and which serve as the basis for discussion and critical reflection of the culture (Ohara, Safe, & Crookes, 2000). Kincheloe (2005) points out that texts and their themes should be provided by both teachers and students who bring their experiences for study and place that knowledge with the context in which it was taken place. In their assignments students are able to pick up these themes that are most meaningful and most relevant to their own lives and the content in which they work (Kessing-Styles, 2003). According to Okazaki (2005), the content should be immediate and meaningful to students in order to make them aware of both the reproductive nature and the possibility of resistance to problematic content. The authentic materials help students link their knowledge to existing problems in society and take necessary actions for its improvement. This transformation practices help students develop skill in reflection and action that allows them to recognize and work against oppressive conditions in society (Ares, 2006). Ares further goes on to say that in enabling transformative practice special attention is paid to students’ cultural heritage, practices, knowledge, and languages. It is also stressed that the aim of transformative practice is social transformation.

5. CP and the Role of Teacher and Student

Teachers in this approach are viewed as problem posers. As a pioneer to this approach Dewey (1963) believes that, learning through problem solving and practical application leads students to take a more active role in determining their experiences and positions within society. Kincheloe and McLaren (1994) maintain that teacher must empower his or her students by raising their awareness of reproducing process of an inequitable status quo in schooling and offer societal institutions. So teachers, in Giroux’s terms, are Transformative Intellectuals who have the knowledge and skill to critique and transform existing inequalities in society (Sadeghi, 2008). The role of this transformative intellectual, she maintains, is to learn from students, appreciate their viewpoints and to take part in the dialogical process. According to Giroux (1997), by creating appropriate conditions, teachers enable students to become cultural producers who can rewrite their experiences and perceptions. They also help students learn from each other and to theorize and understand how to question the authoritarian power of the classroom. According to Paulo Freire (1998), classroom experiences, with the help of the teachers, should become situations in which students are encouraged to act as active agents in their own education and to develop a critical consciousness that helps them evaluate the validity, fairness, and authority within their educational and living situations. He goes on to say that “teaching that does not emerge from the experience of learning cannot be learned by anyone” (p. 30). Teachers, according to Degener (2001), have a central role in CP because they spend the most time with students and have the greatest impact on students and program and how learning occurs in the classroom. He suggests that a critical teacher should be able to elicit student opinions about program structure and curriculum, to set up a classroom that is involved in dialogic interaction, and to find a way when class discussions are obstructed. Teachers have also a critically reflective role, that is to say, for producing an open and equal environment, they must engage in deep self-reflection about their position and the affects of their authority in the classroom. According to Crabtree and Sapp (2004), self-reflection is “the form of questioning one’s motives, purpose, ideology, and pedagogy as informed by theory and habit” (P. 110). Self-reflection enables teachers to make their classes student-centered by accepting unsuccessful educational ideas and oppressive forms in their own educational practices (Higgins, 1996). Degener (2001) states that a critical educator helps students to understand the reasons behind the facts.

As Horton and Freire (1990) believe, a teacher in CP has to be an authority on her/his subject matter but at the same time should be open to relating what he knows through interaction with students. Teachers in CP communicate with students about the society and culture to help them reflect critically on various aspects of the culture they are studying about and preparing to enter into. This way, students through reflection can determine the necessary types of action that they should take in order to improve the life conditions of the oppressed groups (Ohara et al., 2000). Students and teachers should engage in questioning knowledge but it is the teacher who helps the students to identify how to move forward critically in their practice (Kessing-Styles, 2003). Teachers should challenge the current structure by rejecting long standing cultural expectations and mores of their own and the system, additionally, they must give up much of the power.
which is given to them through their titles (Foley, 2007). Critical educators are concerned about emancipatory knowledge that helps students understand how relations of power and privilege distort and manipulate social relationships and help oppressed students by identifying with them.

Students, as Giroux (1997) puts it, are active participants in that together with the teacher they correct the curricula and that they share their ideas and learn to challenge assumptions. According to Degener (2001), students contribute to curricular decisions and determine areas of study and the associated reading materials. Critical learners, as Moore and Parker (1986) maintain, are those who can accept, reject or suspend judgment about a claim. They can also offer good reasons for their ideas and can correct their own and others’ procedures (Lipman, 1988). They should engage in social criticism in order to create a public sphere in which citizens can exercise power over their own lives and learning (Giroux, 1992). Degener (2001) believes that by enabling students to reflect on their commonsense knowledge, they learn how to transform their lives. This is a shift, in Freire’s term, from naive consciousness to critical consciousness. To help students engage in critical consciousness, educators should empower students to reflect on their own worlds, and to self-assess in fact. Guthrie (2003) views both teachers and students as co-agents, that is, teacher’s authority directs the class but this authority differs from that in the traditional pedagogy. This is in line with what Freire (1970) proposed in that there is a fluid relationship between teachers and students, that is, teachers are learners and learners are teachers. Therefore, learners are not recipients of knowledge rather they become creators. Friere also confirms that “no one teaches another, nor is anyone self taught, men teach each other, mediated by the teacher” (p. 67). Guthrie goes on to say that teachers are in a hierarchical position above the students with regard to the existing knowledge and institutional authority. However, Dheram (2007) suggests that both students and teachers should act like awareness raising critiques who aim at identifying positive and negative aspects of education. He believes that by turning verbal and nonverbal means of education into effective instruments of self-affirmation, students and teachers will understand their roles as subjects of research and agents of change.

6. CP and Marginalization

Marginalization is avoided in CP. The aim of CP, according to Freire (1970), is to return to marginalized groups their lost voices and identities. When students gain their lost voices and resist unjust reproduction, they become active agents for social change. Freire also points out that marginalized students should be able to reflect on their concrete situations to find out why things are the way they are. They should be aware of the factors that contributed to their position in society. In a similar position Degener (2001) asserts that teachers should help marginalized students to recognize the need to change their conditions that prevent them from socioeconomic success.

7. CP and Levels of Consciousness

Boyce (1996) reports that critical consciousness is central for Freire because the focus of CP is on the development of critical consciousness. Freire (1973) distinguished three stages or levels of consciousness namely, intransitive, semi transitive, and critical consciousness. In the lowest level or intransitive, the individuals accept their lives as they are and the change that might happen in their lives seem to be the result of magic or miracles. They do not make any attempt to change their life conditions and injustices done to them. The next level or stage of consciousness is semi transitive consciousness which is above the previous level. People with this kind of consciousness are aware of their problems and can learn to change one thing at a moment. They cannot make any connection with outside world and they consider their problems as something normal or accidental. Actions that are taken with this kind of consciousness are often shortsighted. The third level is critical consciousness or critical transitivity which is the highest level of consciousness. People with this kind of consciousness view their problems as structural problems. They can make connections between their problems and the social context in which these problems are embedded. People with this consciousness can interpret the problems and analyze reality. To gain this sort of consciousness, as Heaney (1995) argued, learners must reject passivity and practice dialogue. He also believed that critical consciousness is the result of collective struggle and praxis not individual or intellectual effort.
8. CP and Praxis

The purpose of the educator and the educated, the leader and the followers in a dialogue between equal partners is called praxis (Gur-Ze'ev, 1998). It is defined as “the self-creative activity through which we make the world. The requirements of praxis are theory both relevant to the world and nurtured by actions in it, and an action component in its own theorizing process that grows out of practical and political grounding” (Buker, 1990, cited in Lather, 1991, pp.11-12). In education praxis aims at bridging the gap between theory and transformational action. That is, praxis connects education which is liberatory with social transformation (Boyce, 1996). Praxis for Freire is both reflection and action, both interpretation and change. As he puts it, “Critical consciousness is brought about not through intellectual effort alone but through praxis through the authentic union of action and reflection” (Freire, 1970, cited in Burbules & Berk, 1999). Boyce (1996) also asserts that learners equipped with praxis are well prepared to participate in collective actions. Praxis is critical reflection and action the purpose of which is to implement a range of educational practices and processes with the goal of creating not only a better learning environment but also a better world (Kessing-Styles, 2003). Admitting the importance and the effects of praxis Sadeghi (2008) maintains that only through dialogical process, the practice of praxis is likely to happen.

9. CP and Dialogism

CP involves reading the world as well as reading the word (Freire & Macedo, 1987). As Skutnabb-Kangas and Phillipson (1995) maintain, in observing one’s human right and dignity, the first step is to respect their linguistic human rights. Giroux (1997) maintains that with the help of a critical, oppositional, and theoretical language, teachers can move toward a discourse by which they seek educational criticism. Degener (2001) confirms that even when the same language is spoken in the class, teachers should be sensitive not to favor one kind of interaction over another. Because it is the educator who decides whose voices will be heard and whose will be submerged in the classroom (Giroux, 1997; Lankshear & McLaren, 1993). To Degener (2001), language is important in two ways; first, language needs and curriculum should be grounded in students’ language in order to actively involve students in learning and second, to be able to read the world and transform it, students need a form of discourse. Language is a practice that constructs and is constructed by how language learners understand their social surroundings, histories, and their possibilities for the future (Norton & Toohey, 2004). An individual’s L1 is part of his or her identity, so if the aim is to empower and respect people’s voices, there should be respect for who they are and what values they represent. That is why for marginalized groups language is an important refuge (Baynham, 2006). It is the power of language that enables students to enlarge their scope of understanding (Dheram, 2007). Akbari (2008) points out that, the first step towards empowerment and positive transformation is for the teacher to establish a context in which more of the learners’ first language is included in L2 settings as a teaching aid. But there is a need for some sort of dialogue through which meaning, reality and experience is negotiated if the aim is a libratory one.

To Freire (1998), dialogism is the base of critical education in that it is one means of actively involving students in their own education. The use and practice of dialogue limits teacher talk and encourages learner voice (Shor, 1992). As Freire (1970) puts it, dialogue “is the encounter between men, mediated by the world in order to name the world” (P. 69). He also adds that “only the dialogue, which requires critical thinking, is also capable of generating critical thinking. Without dialogue there is no communication, and without communication, there can be no true education” (P. 73). The use of dialogue, as Freire claims, implies the use of a language similar to the one the individual is familiar with. That is why establishing dialogue with a community is important. Freire’s (1985) classification considers context of dialogue and context of fact, which he believes are necessary for learning to take place. He also believes that by dialogue education becomes pedagogy of knowing because authentic dialogue engages teachers and students in a relationship where one knowing subject is encountered with another knowing subject (Freire, 1985). In a dialogic classroom, teachers are supposed to listen to their students and learn about their problems that are important within their communities and ask questions that raise students’ understanding of these problems from a societal perspective and then finding ways to take political actions to solve them (Degener, 2001). In Shor’s (1992) opinion, dialogue must balance teacher authority with student input. There should be an environment
of equality for dialogue to be liberating. Higgins (1996) stresses Freire’s position in that in a situation where teachers and leaders place themselves above others dialogue cannot take place. In a true dialogical relation there is equal opportunity for all members to speak, everyone respects another’s right to speak and all ideas are tolerated (Robertson, 1994). Robertson goes on to say that via dialogue the teacher empowers students and gives them voice, which ends students’ oppression, and enables them to decode the hidden codes and power relations and to reconstruct reality. In other words, in dialogue supported by CP there is equal, open, and critical inter-subjectivity between students and their world and between teachers and students. There is also a mutual acceptance and trust between the teacher and students (Heaney, 1995). It is through this dialogue, namely, reflecting on what one knows and what one does not know that one can take critical actions to transform and change reality (Kessing-Styles, 2003). This emphasis on dialogical relations as the center of any educational experience is also recognized in the fact that it is via communication that the meaning of human life is transferred (Kessing-Styles, 2003).

10. CP and Educational System in Iran

Unlike traditional approaches, education in CP tries to have transformational effects on learners. This approach aims at changing the point of view of people through which they are used to look at different social problems. It seems that in the Iranian educational system no place is given to such an approach. This approach can enable EFL learners to develop their speaking skills by focusing on their real life problems and at the same time to understand and diagnose their own problems. This way, they can be motivated to speak more and more since they are living with their problems and talking about authentic issues gives students insights to the nature, origin, and possible solutions to their problems. The application of this approach can make teaching sessions more enjoyable by focusing on what the students really need to talk about, letting them discuss their issues of interest, helping students to move forward critically and consequently enabling students to change the structure of their society. This process, no doubt, can lead to improving their life conditions. It is, thus, strongly recommended that this approach be used in EFL classes for the two reasons. First, it motivates students to speak their ideas, that is to say, to develop speaking skills and second, application of its use leads to transformational activities.

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12. References


College-Wide Grading Standards

The text below defines the outlines of the standards for the grades of A, B, C, D, and F. These standards are suggestive of common denominator academic values and must be contextualized at two levels: at the department level (to capture domain-specific variations) and at the course level (to capture course-specific differences).

High Level Performance

High level performance implies excellence in thinking and performance within the domain of a subject and course, along with the development of a range of knowledge acquired through the exercise of thinking skills and abilities.

A level work is, on the whole, not only clear, precise, and well-reasoned, but insightful as well. Basic terms and distinctions are learned at a level which implies insight into basic concepts and principles.

The A-level student has internalized the basic intellectual standards appropriate to the assessment of his/her own work in a subject and demonstrates insight into self-evaluation.

The A-level student often raises important questions and issues, analyzes key questions and problems clearly and precisely, recognizes key questionable assumptions, clarifies key concepts effectively, uses language in keeping with educated usage, frequently identifies relevant competing points of view, and demonstrates a commitment to reason carefully from clearly stated premises in the subject, as well as marked sensitivity to important implications and consequences. A-level work displays excellent reasoning and problem-solving within a field and works consistently at a high level of intellectual excellence.

The Grade of B

The grade of B implies sound thinking and performance within the domain of a subject and course, along with the development of a range of knowledge acquired through the exercise of thinking skills and abilities.

B level work is, on the whole, clear, precise, and well-reasoned, but does not have depth of insight. Basic terms and distinctions are learned at a level which implies comprehension of basic concepts and principles.

The B-level student has internalized some of the basic intellectual standards appropriate to the assessment of his/her own work in a subject and demonstrates competence in self-evaluation.

The B-level student often raises questions and issues, analyzes questions and problems clearly and precisely, recognizes some questionable assumptions, clarifies key concepts competently, typically uses language in keeping with educated usage, sometimes identifies relevant competing points of view, and demonstrates the beginnings of a commitment to reason carefully from clearly stated premises in a subject, as well as some sensitivity to important implications and consequences. B-level work displays sound reasoning and problem-solving within a field and works consistently at a competent level of intellectual performance.
The Grade of C

The grade of C implies mixed thinking and performance within the domain of a subject and course, along with some development of a range of knowledge acquired through the exercise of thinking skills and abilities.

C level work is inconsistently clear, precise, and well-reasoned; moreover, it does not display depth of insight or even consistent competence. Basic terms and distinctions are learned at a level which implies the beginnings of, but inconsistent comprehension of, basic concepts and principles.

The C-level student has internalized a few of the basic intellectual standards appropriate to the assessment of his/her own work in a subject, but demonstrates inconsistency in self-evaluation.

The C-level student sometimes raises questions and issues, sometimes analyzes questions and problems clearly and precisely, recognizes some questionable assumptions, clarifies some concepts competently, inconsistently uses language in keeping with educated usage, sometimes identifies relevant competing points of view, but does not demonstrate a clear commitment to reason carefully from clearly stated premises in a subject, nor consistent sensitivity to important implications and consequences.

C-level work displays inconsistent reasoning and problem-solving within a field and works, at best, at a competent level of intellectual performance.

The Grade of D

The grade of D implies poor thinking and performance within the domain of a subject and course. On the whole, the student tries to get through the course by means of rote recall, attempting to acquire knowledge by memorization rather than through comprehension and understanding.

The student is not developing critical thinking skills and understandings as requisite to understanding course content. D-level work represents thinking that is typically unclear, imprecise, and poorly reasoned. The student is achieving competence only on the lowest order of performance. Basic terms and distinctions are often incorrectly used and reflect a superficial or mistaken comprehension of, basic concepts and principles.

The D-level student has not internalized the basic intellectual standards appropriate to the assessment of his/her own work in a subject and does poorly in self-evaluation. The D-level student rarely raises questions and issues, superficially analyzes questions and problems, does not recognize his/her assumptions, only partially clarifies concepts, rarely uses language in keeping with educated usage, rarely identifies relevant competing points of view, and shows no understanding of the importance of a commitment to reason carefully from clearly stated premises in a subject.

The D-level student is insensitive to important implications and consequences. D-level work displays poor reasoning and problem-solving within a field and works, at best, at a low level of intellectual performance.

The Grade of F

The student tries to get through the course by means of rote recall, attempting to acquire knowledge by memorization rather than through comprehension and understanding. The student is not developing critical thinking skills and understandings as requisite to understanding course content.

F-level work represents thinking that is regularly unclear, imprecise, and poorly reasoned. The student is not achieving competence in his/her academic work. Basic terms and
distinctions are regularly incorrectly used and reflect a mistaken comprehension of basic concepts and principles.

The F-level student has not internalized the basic intellectual standards appropriate to the assessment of his/her own work in a subject and regularly mis-evaluates his/her own work. The F-level student does not raise questions or issues, does not analyze questions and problems, does not recognize his/her assumptions, does not clarify concepts, does not use language in keeping with educated usage, confuses his/her point of view with the TRUTH, and shows no understanding of the importance of a commitment to reason carefully from clearly stated premises in a subject.

The F-level student is oblivious to important implications and consequences. F-level work displays incompetent reasoning and problem-solving within a field and consistently poor intellectual performance.

{This article is adapted from the resource: Critical Thinking Basic Theory and Instructional Structures. (https://www.criticalthinking.org/store/products/critical-thinking-basic-theory-and-instructional-structures-handbook/148)}

Back to top (https://www.criticalthinking.org/pages/college-wide-grading-standards/441#top)
Critical Thinking Class: Grading Policies

By Richard Paul

The Goal of the Portfolio is to
Amass Evidence of Critical Thinking Ability

"Evidence" is something that makes something else "evident". The key question is, "What specifically does your writing make evident?"

FOR EXAMPLE:

When you write sentences that can be interpreted in many different ways, you make evident that you are thinking in a vague way.

When you do not give concrete examples and illustrations to make your point clear, you make evident that you do not know how to clarify your thought.

When you do not make clear-with appropriate transitional words and critical vocabulary-the logical relations between the sentences you write, you make evident that you are not thinking in terms of the logic of your thought, that you do not fully understand the structure of your own reasoning.

When you do not analyze key concepts and demonstrate how to lay bare the logic of them, you make evident that you are weak at conceptual analysis.

The Weighting of Papers in the Portfolio

The semester will be divided into thirds. At the end of the course, to determine your grade on the portfolio, I will grade one paper randomly chosen from the first third, two from the second third, and three from the final third. At any point in the course you may turn in your portfolio for grade-level assessment. However, if you are routinely assessing your own work—as critical thinking requires, you should be able to recognize the level at which you are performing.

What Each Grade Represents

The Grade of F

Here are typical characteristics of the work of a student who receives an F. A close examination reveals:

The student does not understand the basic nature of critical thinking, and in any case does not display the critical thinking skills and abilities which are at the heart of this course. The work at the end of the course is vague, imprecise, and unreasoned as it was in the beginning.

There is little evidence that the student is genuinely engaged in the task of taking charge of his or her thinking. Many assignments appear to have been done pro forma, the student
simply going through the motions without really putting any significant effort into thinking his or her way through them.

Consequently, the student is not analyzing issues clearly, not formulating information clearly, not accurately distinguishing the relevant from the irrelevant, not identifying key questionable assumptions, not clarifying key concepts, not identifying relevant competing points of view, not reasoning carefully from clearly stated premises, or tracing implications and consequences.

The students work does not display discernable reasoning and problem-solving skills.

The Grade of D

D level work shows only a minimal level of understanding of what critical thinking is, along with the development of some, but very little, critical thinking skills or abilities.

D work at the end of the course, on the whole, shows only occasional critical thinking skills, but frequent uncritical thinking. Most assignments are poorly done. There is little evidence that the student is "reasoning" through the assignment. Often the student seems to be merely going through the motions of the assignment, carrying out the form without getting into the spirit of it.

D work rarely shows any effort to take charge of ideas, assumptions, inferences, and intellectual processes. In general, D-level thinking lacks discipline and clarity.

In D-level work, the student rarely analyzes issues clearly and precisely, almost never formulates information clearly, rarely distinguishes the relevant from the irrelevant, rarely recognizes key questionable assumptions, almost never clarifies key concepts effectively, frequently fails to use language in keeping with educated usage, only rarely identifies relevant competing points of view, and almost never reasons carefully from clearly stated premises, or recognizes important implications and consequences.

D-level work does not show good reasoning and problem-solving skills and frequently displays poor reasoning and problem-solving skills.

The Grade of C

C-level work illustrates some but inconsistent achievement in grasping what critical thinking is, along with the development of modest critical thinking skills or abilities.

C-level work at the end of the course, it is true, shows some emerging critical thinking skills, but also pronounced weaknesses as well. Though some assignments are reasonably well done, others are poorly done; or at best are mediocre.

There are more than occasional lapses in reasoning. Though critical thinking terms and distinctions are sometimes used effectively, sometimes they are used quite ineffectively.

Only on occasion does C-level work display a mind taking charge of its own ideas, assumptions, inferences, and intellectual processes. Only occasionally does C-level work display intellectual discipline and clarity.

The C-level student only occasionally analyzes issues clearly and precisely, formulates information clearly, distinguishes the relevant from the irrelevant, recognizes key questionable assumptions, clarifies key concepts effectively, uses language in keeping with educated usage, identifies relevant competing points of view, and reasons carefully from clearly stated premises, or recognizes important implications and consequences.

Sometimes the C-level student seems to be simply going through the motions of the assignment, carrying out the form without getting into the spirit of it. On the whole, C-level work shows only modest and inconsistent reasoning and problem-solving skills and sometimes displays weak reasoning and problem-solving skills.
The Grade of B

B-level work represents demonstrable achievement in grasping what critical thinking is, along with the clear demonstration of a range of specific critical thinking skills or abilities.

B-level work at the end of the course is, on the whole, clear, precise, and well-reasoned, though with occasional lapses into weak reasoning. On the whole, critical thinking terms and distinctions are used effectively. The work demonstrates a mind beginning to take charge of its own ideas, assumptions, inferences, and intellectual processes.

The student often analyzes issues clearly and precisely, often formulates information clearly, usually distinguishes the relevant from the irrelevant, often recognizes key questionable assumptions, usually clarifies key concepts effectively, typically uses language in keeping with educated usage, frequently identifies relevant competing points of view, and shows a general tendency to reason carefully from clearly stated premises, as well as noticeable sensitivity to important implications and consequences. B-level work displays good reasoning and problem-solving skills.

The Grade of A

A-level work demonstrates real achievement in grasping what critical thinking is, along with the clear development of a range of specific critical thinking skills or abilities. The work at the end of the course is, on the whole, clear, precise, and well-reasoned, though with occasional lapses into weak reasoning.

In A-level work, critical thinking terms and distinctions are used effectively. The work demonstrates a mind beginning to take charge of its own ideas, assumptions, inferences, and intellectual processes.

The A-level student often analyzes issues clearly and precisely, often formulates information clearly, usually distinguishes the relevant from the irrelevant, often recognizes key questionable assumptions, usually clarifies key concepts effectively, typically uses language in keeping with educated usage, frequently identifies relevant competing points of view, and shows a general tendency to reason carefully from clearly stated premises, as well as noticeable sensitivity to important implications and consequences.

A-level work displays excellent reasoning and problem-solving skills. The A student’s work is consistently at a high level of intellectual excellence.

{This article is adapted from the resource: Critical Thinking Basic Theory and Instructional Structures. (https://www.criticalthinking.org/store/products/critical-thinking-basic-theory-and-instructional-structures-handbook/148)}

Back to top (https://www.criticalthinking.org/pages/critical-thinking-class-grading-policies/442#top)
Grade Profiles

Linda Elder

An Intro to Psychology

The Grade of F

The work at the end of the course is as vague, imprecise, and unreasoned as it was in the beginning. There is little evidence that the student is genuinely engaged in the task of taking charge of his or her psychological thinking.

Many assignments appear to have been done pro forma, the student simply going through the motions without really putting any significant effort into thinking his or her way through them.

Consequently, the student is not analyzing psychological issues clearly, not formulating psychological information accurately, not distinguishing relevant from irrelevant information, not identifying key questionable psychological assumptions, not clarifying key psychological concepts, not identifying relevant psychological competing points of view, not reasoning carefully from clearly stated premises, or tracing psychological implications and consequences.

The students work does not display discernable psychological reasoning and problem-solving skills.

The Grade of D

D-level work shows only a minimal level understanding of what psychological thinking is, along with the development of some, but very little, psychological thinking skills or abilities.

D work at the end of the course, on the whole, shows only occasional psychological thinking skills, but frequent uncritical psychological thinking. Most assignments are poorly done. There is little evidence that the student is "reasoning" through the assignment.

Often the student seems to be merely going through the motions of the assignment, carrying out the form without getting into the spirit of it. D work rarely shows any effort to take charge of ideas, assumptions, inferences, and intellectual processes. In general, D-level thinking lacks discipline and clarity.

In D-level work, the student rarely analyzes psychological issues clearly and precisely, almost never formulates psychological information accurately, rarely distinguishes the relevant from the irrelevant, rarely recognizes key questionable assumptions, almost never clarifies key psychological concepts effectively, frequently fails to use psychological language in keeping with established professional usage, only rarely identifies relevant competing psychological points of view, and almost never reasons carefully from clearly stated premises, or recognizes important implications and consequences.

D-level work does not show good psychological reasoning and problem-solving skills and frequently displays poor reasoning and problem-solving skills.

The Grade of C

C-level work illustrates some but inconsistent achievement in grasping what psychological thinking is, along with the development of modest psychological thinking skills or abilities.

C-level work at the end of the course, it is true, shows some emerging psychological thinking skills, but also pronounced weaknesses as well. Though some assignments are reasonably well done, others are poorly done; or at best are mediocre.
There are more than occasional lapses in reasoning. Though psychological thinking terms and distinctions are sometimes used effectively, sometimes they are used quite ineffectively. Only on occasion does C-level work display a mind taking charge of its own ideas, assumptions, inferences, and intellectual processes. Only occasionally does C-level work display intellectual discipline and clarity.

The C-level student only occasionally analyzes psychological issues clearly and precisely, formulates psychological information accurately, distinguishes the relevant from the irrelevant, recognizes key questionable assumptions, clarifies key psychological concepts effectively, uses psychological language in keeping with established professional usage, identifies relevant psychological competing points of view, and reasons carefully from clearly stated premises, or recognizes important psychological implications and consequences. Sometimes the C-level student seems to be simply going through the motions of the assignment, carrying out the form without getting into the spirit of it.

On the whole, C-level work shows only modest and inconsistent psychological reasoning and problem-solving skills and sometimes displays weak reasoning and problem-solving skills.

**The Grade of B**

B-level work represents demonstrable achievement in grasping what psychological thinking is, along with the clear demonstration of a range of specific psychological thinking skills or abilities.

B-level work at the end of the course is, on the whole, clear, precise, and well-reasoned, though with occasional lapses into weak reasoning.

On the whole, psychological terms and distinctions are used effectively. The work demonstrates a mind beginning to take charge of its own ideas, assumptions, inferences, and intellectual processes.

The student often analyzes psychological issues clearly and precisely, often formulates psychological information accurately, usually distinguishes the relevant from the irrelevant, often recognizes key questionable assumptions, usually clarifies key psychological concepts effectively, typically uses psychological language in keeping with established professional usage, frequently identifies relevant psychological competing points of view, and shows a general tendency to reason carefully from clearly stated premises, as well as noticeable sensitivity to important implications and consequences.

B-level work displays good psychological reasoning and problem-solving skills.

**The Grade of A**

A-level work demonstrates real achievement in grasping what psychological thinking is, along with the clear development of a range of specific psychological thinking skills or abilities.

The work at the end of the course is, on the whole, clear, precise, and well-reasoned, though with occasional lapses into weak reasoning. In A-level work, psychological terms and distinctions are used effectively. The work demonstrates a mind beginning to take charge of its own ideas, assumptions, inferences, and intellectual processes.

The A-level student often analyzes psychological issues clearly and precisely, often formulates psychological information accurately, usually distinguishes the relevant from the irrelevant, often recognizes key questionable assumptions, usually clarifies key psychological concepts effectively, typically uses psychological language in keeping with established professional usage, frequently identifies relevant competing psychological points of view, and shows a general tendency to reason carefully from clearly stated premises, as well as noticeable sensitivity to important implications and consequences.

A-level work displays excellent psychological reasoning and problem-solving skills. The A student's work is consistently at a high level of intellectual excellence.

{This article is adapted from the resource: Critical Thinking Basic Theory and Instructional Structures. (https://www.criticalthinking.org/store/products/critical-thinking-basic-theory-and-instructional-structures-handbook/148)}
Socratic Teaching

The oldest, and still the most powerful, teaching tactic for fostering critical thinking is Socratic teaching. In Socratic teaching we focus on giving students questions, not answers. We model an inquiring, probing mind by continually probing into the subject with questions. Fortunately, the abilities we gain by focusing on the elements of reasoning in a disciplined and self-assessing way, and the logical relationships that result from such disciplined thought, prepare us for Socratic questioning.

Thankfully, there is a predictable set of relationships that hold for all subjects and disciplines. This is given in the general logic of reasoning, since every subject has been developed by those who had:

- shared goals and objectives (which defined the subject focus)
- shared questions and problems (whose solution they pursued)
- shared information and data (which they used as an empirical basis)
- shared modes of interpreting or judging that information
- shared specialized concepts and ideas (which they used to help them organize their data)
- shared key assumptions (that gave them a basis from which to collectively begin)
- a shared point of view (which enabled them to pursue common goals from a common framework)

Each of the elements represents a dimension into which one can delve in questioning a person. We can question goals and purposes. We can probe into the nature of the question, problem, or issue that is on the floor. We can inquire into whether or not we have relevant data and information. We can consider alternative interpretations of the data and information. We can analyze key concepts and ideas. We can question assumptions being made. We can ask students to trace out the implications and consequences of what they are saying. We can consider alternative points of view. All of these, and more, are the proper focus of the Socratic questioner.

As a tactic and approach, Socratic questioning is a highly disciplined process. The Socratic questioner acts as the logical equivalent of the inner critical voice which the mind develops when it develops critical thinking abilities. The contributions from the members of the class are like so many thoughts in the mind. All of the thoughts must be dealt with and they must be dealt with carefully and fairly. By following up all answers with further questions, and by selecting questions which advance the discussion, the Socratic questioner forces the class to think in a disciplined, intellectually responsible manner, while yet continually aiding the students by posing facilitating questions.

A Socratic questioner should:

a) keep the discussion focused
b) keep the discussion intellectually responsible
c) stimulate the discussion with probing questions
d) periodically summarize what has and what has not been dealt with and/or resolved
e) draw as many students as possible into the discussion.


Valuable Intellectual Traits

- **Intellectual Humility**: Having a consciousness of the limits of one's knowledge, including a sensitivity to circumstances in which one's native egocentrism is likely to function self-deceptively; sensitivity to bias, prejudice and limitations of one's viewpoint. Intellectual humility depends on recognizing that one should not claim more than one actually knows. It does not imply spinelessness or submissiveness. It implies the lack of intellectual pretentiousness, boastfulness, or conceit, combined with insight into the logical foundations, or lack of such foundations, of one's beliefs.

- **Intellectual Courage**: Having a consciousness of the need to face and fairly address ideas, beliefs or viewpoints toward which we have strong negative emotions and to which we have not given a serious hearing. This courage is connected with the recognition that ideas considered dangerous or absurd are sometimes rationally justified (in whole or in part) and that conclusions and beliefs inculcated in us are sometimes false or misleading. To determine for ourselves which is which, we must not passively and uncritically "accept" what we have "learned." Intellectual courage comes into play here, because inevitably we will come to see some truth in some ideas considered dangerous and absurd, and distortion or falsity in some ideas strongly held in our social group. We need courage to be true to our own thinking in such circumstances. The penalties for non-conformity can be severe.

- **Intellectual Empathy**: Having a consciousness of the need to imaginatively put oneself in the place of others in order to genuinely understand them, which requires the consciousness of our egocentric tendency to identify truth with our immediate perceptions of long-standing thought or belief. This trait correlates with the ability to reconstruct accurately the viewpoints and reasoning of others and to reason from premises, assumptions, and ideas other than our own. This trait also correlates with the willingness to remember occasions when we were wrong in the past despite an intense conviction that we were right, and with the ability to imagine our being similarly deceived in a case-at-hand.

- **Intellectual Autonomy**: Having rational control of one's beliefs, values, and inferences, The ideal of critical thinking is to learn to think for oneself, to gain command over one's thought processes. It entails a commitment to analyzing and evaluating beliefs on the basis of reason and evidence, to question when it is rational to question, to believe when it is rational to believe, and to conform when it is rational to conform.

- **Intellectual Integrity**: Recognition of the need to be true to one's own thinking; to be consistent in the intellectual standards one applies; to hold one's self to the same rigorous standards of evidence and proof to which one holds one's antagonists; to practice what one advocates for others; and to honestly admit discrepancies and inconsistencies in one's own thought and action.

- **Intellectual Perseverance**: Having a consciousness of the need to use intellectual insights and truths in spite of difficulties, obstacles, and frustrations; firm adherence to rational principles despite the irrational opposition of others; a sense of the need to struggle with confusion and unsettled questions over an extended period of time to achieve deeper understanding or insight.
- **Confidence In Reason**: Confidence that, in the long run, one’s own higher interests and those of humankind at large will be best served by giving the freest play to reason, by encouraging people to come to their own conclusions by developing their own rational faculties; faith that, with proper encouragement and cultivation, people can learn to think for themselves, to form rational viewpoints, draw reasonable conclusions, think coherently and logically, persuade each other by reason and become reasonable persons, despite the deep-seated obstacles in the native character of the human mind and in society as we know it.

- **Fairmindedness**: Having a consciousness of the need to treat all viewpoints alike, without reference to one’s own feelings or vested interests, or the feelings or vested interests of one’s friends, community or nation; implies adherence to intellectual standards without reference to one’s own advantage or the advantage of one’s group.


Valuable Intellectual Traits

**Sublinks:**

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Critical Thinking in Every Domain of Knowledge and Belief (http://www.criticalthinking.org/pages/critical-thinking-in-every-domain-of-knowledge-and-belief/698)


Open-minded inquiry (http://www.criticalthinking.org/pages/open-minded-inquiry/579)

Valuable Intellectual Traits (http://www.criticalthinking.org/pages/valuable-intellectual-traits/528)


Thinking With Concepts (http://www.criticalthinking.org/pages/thinking-with-concepts/525)

The Analysis & Assessment of Thinking (http://www.criticalthinking.org/pages/the-analysis-amp-assessment-of-thinking/497)


Distinguishing Between Inert Information, Activated Ignorance, Activated Knowledge (http://www.criticalthinking.org/pages/distinguishing-between-inert-information-activated-ignorance-activated-knowledge/488)

Critical Thinking: Identifying the Targets (http://www.criticalthinking.org/pages/critical-thinking-identifying-the-targets/486)

Distinguishing Between Inferences and Assumptions (http://www.criticalthinking.org/pages/distinguishing-between-inferences-and-assumptions/484)


Becoming a Critic Of Your Thinking (http://www.criticalthinking.org/pages/becoming-a-critic-of-your-thinking/478)

Bertrand Russell on Critical Thinking (http://www.criticalthinking.org/pages/bertrand-russell-on-critical-thinking/477)
V. Equity & STEM Resources

- Diversity in Physics
- Strategies for Inclusive Teaching in STEM Fields
- What is the Normative Body in STEM Handout
- Rethinking Mathematics book
  - Driving While Black or Brown
  - Reading the World with Math
  - Race, Retrenchment, and the Reform of School Mathematics
  - Chicanos Have Math in their Blood-Pre-Colombian Mathematics
  - Worksheet-Globalization, Labor, and the Environment
  - Radical Equation
Teaching About Racial Equity in Introductory Physics Courses
Abigail R. Daane, Sierra R. Decker, and Vashti Sawtelle

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Teaching About Racial Equity in Introductory Physics Courses

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Vashti Sawtelle, Michigan State University, East Lansing, MI

Even after you have decided to tackle a problem like racial equity, it may seem daunting to broach the subject in a physics classroom. After all, the idea of a (typically White) instructor in power tackling a sensitive topic such as social justice can be scary in any (mostly White) classroom. Not only that, but physics is typically viewed as a “culture with no culture.”¹ The physicist’s quest for objectivity, along with a general focus on a fixed set of laws and formulae, support the treatment of this subject as untouched by people. Sometimes it is easier to ignore the problem and just focus on the Conservation of Energy Principle. However, ignoring the striking underrepresentation of ethnic/racial minorities and women in both the physics classroom and the field at large²,³ is a great disservice to all our students. We take the position that the persistence of representation disparities in physics is evidence that culture plays a role in who and what is involved in physics.⁴ Instructors have an opportunity to explicitly address the absence of equitable circumstances in classrooms and highlight the obstacles that contribute to the disparity (e.g., varied access to learning opportunities and support structures, dominant cultural norms, stereotype threat, implicit bias, hidden curricula, etc.). We acknowledge that incorporating these discussions in a physics classroom is fraught with difficulty, but we also believe that trying to lead these discussions is better than ignoring the problem. Furthermore, a set of resources for teachers interested in leading these discussions has been developing in the physics teacher community.⁵,⁶ Rifkin⁶ offers resources for leading a two-week unit on equity designed for secondary science classrooms. Here we describe another possible pathway for integrating a shorter equity unit into the traditional content of a (predominantly White) university physics classroom, addressing racial inequity and sharing common student responses that may arise.

Learning goals

Our equity unit was developed with the aim to provide a space for students to explore their own views of what it means to learn and practice physics and how that might be affected by racial inequity. By the end of the unit, students are expected to:

1) Identify areas of subjectivity in physics.
2) Analyze statistics about who participates in physics.
3) Justify the need for racial equity (inclusion and access) in physics.
4) Describe what and how obstacles such as implicit bias, stereotype threat, etc. can influence who participates in the physics field and classroom, creating inequity.
5) Feel empowered to take action towards creating a more equitable community.

We ask students to reflect on their personal feelings/opinions/experiences that this unit produces (often before, during, and after each activity) to allow time for processing new information and working towards meeting the above goals.

General overview

In order to accomplish the learning goals, we designed a four-day (approximately 220–300 instructional minutes) unit

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to support student discussion and reflection on issues of equity in physics. Table I outlines a possible schedule of topics, activities, timeframe, and suggested reading and reflection. The unit starts by asking students to reflect on and discuss the nature of physics—both in the community and classroom. This is followed by an analysis of: 1) how the lack of involvement from certain groups of people impacts the focus and total body of knowledge in physics; 2) how individuals from underrepresented groups themselves can benefit from the opportunity to participate in physics; and 3) who actually participates in physics. After looking at the statistics of “who does physics,” students grapple with explanations for these statistics and finally work to define concrete ways that they can change this inequity.

Equity, privilege, and underrepresentation are sensitive topics. It is worth noting that a few actions can be performed prior to the unit that encourage participation and honest reflection.

A) We, as instructors, co-create with students and implement norms that support student dialogue. Explicit norm setting and discussion from a preliminary list at the beginning of the unit—or a refresher about the norms you have set in the class—can be an effective way of setting the tone for the small group and whole class discussions. We also find it particularly effective to simply ask the class, “What do you need to feel comfortable contributing to conversations in this class?” and use students’ ideas to create the list. Once these norms are set, we reference them often throughout the unit.

B) We inform students from underrepresented ethnic/racial groups prior to the unit about the upcoming topic.

C) We are explicit about removing summative assessments in the unit.

D) We have found it productive to begin the unit by defining physics and its inherent subjectivity, preparing students to speak about racial issues.

**Activity 1: What is physics?**

Prior to any class discussion (either as previous homework or individually in class), we ask students to answer the following questions about the content and culture of physics.

1. What is physics?
2. Do you think physics is subjective or objective? Why?
3. Do you think racial diversity in physics is important? Why or why not?

After norm setting, students work in small groups to define physics in their own words and share that definition with the class. Students are then asked to choose a side of the room to stand on based on their view about whether physics is objective or subjective, with the understanding that they can always switch at any point in the conversation! We give students one minute to think about where they will go prior to moving. When students have chosen a side, we encourage students to take the reins in the discussion and “defend” their side of the room.

At the end of each discussion, students reflect on class discussions using the prompt, “What are you thinking about right now and/or how are you feeling regarding our discussion?” The responses here can provide direction for the following discussion.

**Common student ideas – What is physics?**

Implementing this unit in a class at a small private university, we found that students are generally comfortable sharing their ideas about the nature of physics. In most classes, the majority of students (usually about ⅔ of a class of 40) take a strong “physics is objective” stance and generally keep that view throughout the initial conversation. The debate centers on whether physics is a field of study or the physical world itself. A student who views physics as explaining the world argued, “Physics is objective. It is measurable, quantifiable, and does not depend upon emotions or personal feelings.” While many “objective” students acknowledge that there may be multiple ways to solve problems, they see physics as based on facts and rules. For example, one student stated,

> “Physics is not ...up to interpretation. I can see how the study of physics and practicing of physics may differ, and how different applied concepts can be interpreted differently, but I view physics itself to be the way ‘things’ work, which is based on facts and rules.”

Others maintain that exploratory physics can be subjective, but is refined to become fact.

> “I think that physics is objective because it started off with opinions and/or interpretations of situations that involved physics, until it transformed into fact-based laws that came from thorough, measured observations and conclusions.”

Finally, some students describe physics as subjective, affected by people's perspective and/or interpretation.

> “I think that physics is perceived as objective but is actually subjective. How do we know that the laws of physics hold true in every situation in the universe? We, as humans, are still learning about how the universe operates everyday. Physics and other fields of science are by no means absolute truths. I see physics as a subjective interpretation of the objective universe.”

**Reading and reflection**

After the discussion, we ask students to read about the subjectivity in science, e.g., the introduction chapter of Hatton & Plouffe. Students may need to discuss the reading in the following class. This can be done in small groups first and/or move to the two rows again. We position physics as subjective in this discussion to encourage the idea that humans can affect what and how physics is studied. We see this position as an opening for students to consider how the disparity in the representation in physics impacts the community, which leads directly into the next activity.
Activity 2a: Does (racial) diversity matter?

We ask students, “Do you think racial diversity in physics is important? Why or why not?” The conversation can quickly become stale and politically correct, e.g., “Diversity is great!” “We love diversity!” We recognize students may not feel comfortable expressing certain opinions to a large class, so we introduce two (or more) illustrations of these opinions that come from previous students or current sociopolitical statements. For example, one student wrote about the importance of academic diversity in the physics classroom (in contrast with racial diversity).

“I feel that since physics is a fact-based class, racial diversity is not as important as academic diversity; I think that students capable of accurately interpreting ideas in physics lend more to the class than what background they came from. (This is specifically about physics.)”

Additional fodder for discussing diversity in the context of physics includes Chief Justice Roberts’ question, “What unique perspective does a minority student bring to a physics class?” Roberts asked this question during the 2016 Fisher vs. UT Austin Supreme Court case regarding affirmative action policies for admission into UT Austin. The former student and Chief Justice Roberts’ question usually spark discussion about whether or not “a minority student” brings something different to physics. Small group discussions can support students in processing their ideas.

Activity 2b: Who does physics? Why?

The American Institute of Physics (AIP) Statistical Resource Center\(^2\)\(^3\) has collected data regarding the question, “Who does physics?” Giving students the opportunity to peruse their data and learn more about the statistics of who does physics can be powerful. We choose to share particularly relevant graphs as a whole class after students have had time in small groups.” In general, most of the statistics show that there is not a proportional representation of ethnic/racial minorities and women in physics.\(^1\) Students may ask: why is there a difference between the general population and the physics community? We pose this question to the class if it is not asked unprompted.

Common student ideas – Who does physics?

Students have varying reactions to the underrepresentation of ethnic/racial minorities and women in the AIP statistics. For many of our students, “racism” is a part of history that is no longer prevalent in society. These statistics are in conflict with their perception of how the world “should” be today. “It is sad to me that even in the 2000’s people still can’t see people past their skin color.” For other students, this is not new information and it is frustrating to hear that some students think racism is no longer an issue. One student explained, “Contrary to white people’s opinion racism is real.” At this point, many students recognize the disparity and naturally begin to defend people from underrepresented groups and wonder why the underrepresentation occurs.

“Predominantly white males ‘do physics’… There is a lot of potential going to waste in the world because brilliant minds do not have the same opportunity to achieve simply because they are a minority. It’s not because they are not smart enough.”

Instructors can choose to either ask students to brainstorm ideas for why the disparity occurs or introduce obstacles such as implicit bias or stereotype threat into the conversation. We offer readings as homework in the following section to support students in thinking about reasons for the underrepresentation of certain groups in physics.

Reading and reflection

This assignment can be split into multiple assignments if the course has the time to do so. For our university course, we prefer to warn students the assignment is time-consuming and ask that they plan ahead. The assignment contains four parts:

A. Take two Implicit Associations Tests (IAT),\(^1\) one of your choice and race (“Black-White” IAT). We encourage students to spend some time learning about the IAT and analyzing the average results. We do not require students to share their individual results of the IAT.

B. Read “A Threat in the Air: How Stereotypes Shape Intellectual Identity and Performance.”\(^1\) Optional: Watch “Stereotype Threat: A Conversation with Claude Steele.”\(^1\)

C. Read “An Open Letter to SCOTUS from Professional Physicists.”

D. Write a reflection about A) the average results of the IAT, B) the article, and C) the letter. What are your feelings about the whole conversation thus far?

This new information is by no means all-inclusive, but we hope that it gives students a sense that many of the obstacles faced by people from underrepresented groups are in fact implicit and powerful.

Activity 3a: What are your reactions?

After receiving a wealth of information in the previous activities, students will need to process their ideas. Simply asking them to share their thoughts or feelings with partners, small groups, and/or whole class can be fruitful. A Gallery Walk\(^1\) (with ideas on whiteboards) might serve as an appropriate alternative if leading this class discussion is difficult for an instructor. When we have created opportunities for this type of reflection, common student ideas have ranged from strong reactions to the IAT to feeling supported about their own views of inequities in physics.
Reactions to the Implicit Association Test

Many students have strong reactions to the IAT, feeling as though the test itself was not fair or designed well.

“I think that test and its results were complete nonsense. I don’t see how you could possibly entertain the idea that being able or unable to sort words and faces between categories somehow show you your true feelings about a given race of people. My test said I had a moderate preference for white people, and I’m calling bullshit.”

Students will likely want to discuss the limitations and affordances of the IAT experimental design. After this discussion students accept that the IAT results tell us about how we react implicitly (as a society or as an individual), and they often feel strongly about their own bias, expressing sadness, guilt, anger, and frustration.

“My first thoughts of the IAT did not shock me; however, it did disturb my sensibilities. I knew in the past that the world had made strides to reduce discrimination outwardly, but I find it very unsettling to see moderately strong bias for Whites rather than African Americans.”

Our goal with this unit is not to cause a downward spiral into negativity and hopelessness. Instead we use this activity to support students in recognizing the difference between implicit biases and deliberate choices. We hope to empower students to recognize that by slowing their decision-making process, they can reduce the influence of their implicit biases on their actions.

Reactions to stereotype threat

We have found that many students have never heard of stereotype threat and yet the concept is familiar. For many students, their reflections offered personal stories and emotional descriptions.

“In the ‘A Threat in the Air’ Paper, they talked about how stereotypes shape intellectual identity and performance. It’s completely true that the world is shaped by our first impression of others. Most people (not all) would judge another person based on how they look or their background. And I find this really awful! Because it wouldn’t give the person a chance to show his or her worth!”

Reactions to the open letter to SCOTUS

Students generally feel comforted by the open letter to SCOTUS from professional physicists; one student stated, “the letter was powerful coming from thousands of physicists across the nation.” Some students described the letter as providing new insight about the relevance of racial dynamics in physics. “I used to think that race doesn’t have [sic] anything to do with physics. However, after reading the letter, I agree with the physicists that race does play a role in science classes.”

Other students reflected on the role that people from underrepresented groups play in physics, not necessarily for supporting the majority, but for their own edification (benefiting from learning physics). “Overall I feel like my responses and the class discussion have focused on what diversity and minority students can bring to physics, but not necessarily the benefit that increased diversity can bring to the minority students themselves … the importance of diversity should be more than just thinking about what it can do for us.” Several students reported that this assignment supported their understanding of the inequity.

“I have seen the effects of stereotyping in the school system my whole life so this is very relatable. … I feel bad knowing that all my friends are white or Asian and wish the uneasiness that comes with racial diversity wasn’t there to begin with. Taking the test, reading the article, and watching the movie have made me both sad and convicted about the implications that actions such as stereotyping have on a community.”

During the second year of teaching this unit, we added a final activity because students pushed the instructor to support them in learning what they could do to change the situation.

Activity 3b: What can we do?

Learning about the obstacles and challenges that people from underrepresented groups face can leave students feeling guilty, frustrated, and/or helpless. This activity gives students the opportunity to brainstorm answers to the question, “What can we do?” In small groups, students share ideas about how to take action on an individual and societal scale, recording ideas in a shared online document (accessible to all students in the class). Students can alternatively use Post-it notes and share ideas on a whiteboard. Sharing out one action item to the whole class can provide a positive close to the unit.

Common student ideas for action

Students have generated many ideas about how to become agents of change. Table II shows a few examples of the kinds of action items students come up with in small groups.

Reflection

Our design supports students in reflecting on each topic at the end of the whole unit. We ask students to respond to the following questions for a final time:

1. Do you think physics is subjective or objective? Why?
2. Do you think diversity is important? Why or why not?
3. Why did we do this in intro physics? (How do you feel about this unit? Do you think your views changed based on our conversations and readings?)
4. What can you/will you do?

Student reactions to unit

Students will commonly express a range of emotional responses to this unit. We found that generally students feel this was a worthwhile unit, and many feel that their views have shifted as a result of the unit. For example,

“My thoughts regarding this whole situation have gradually changed. I went in thinking that racial diversity in
the physics classroom was not important at all. I now think that diversity can be a great and empowering thing not just to the minority but to the whole classroom.”

This student response is not uncommon.19 While the majority of the students describe the unit as a positive experience, it is likely that a few students will feel the unit is a waste of their tuition and time in a physics class.19 For example, “I do not understand why we are spending class time to discuss this issue. I am honestly upset by being asked to spend class time, and even homework time designated to physics, to discuss racial issues that do not apply to what I am paying lots of money to learn.”

When these concerns are raised, it can be valuable to reflect the question back to the classroom. Shared anonymously, a quote like the one above about racial issues not applying to physics can spark conversation regarding the value of this topic in physics. Research on university students from underrepresented groups suggests it is important to discuss equity: focusing on “objective” parts of science without connection to the social realms leads to feelings of disenfranchisement.20,21 We found that during the second year teaching this unit, fewer students expressed this concern in their reflections, possibly due to the introduction of the unit with a discussion about the nature of physics.

Another important reaction that surfaced comes from those who self-identified as students from underrepresented groups in their anonymous reflections and discussed the importance of the unit for their classmates.18 For example, this student reacted to comments similar to the previous student’s statements explicitly:

“It really bothered me hearing my classmates complain about this [topic] in physics. Most of my classmates say they want a change in how we perceive minorities, yet they are complaining that they even have to talk about it. How is a person going to make a change or even give ideas [for] change if he/she is not willing to face this uncomfortable topic? … I am a Mexican female. I have experienced discrimination. Therefore I strongly support discussions inside classrooms about race.”

One concern about these comments is that this unit may not be educational for students from underrepresented groups, in that this unit is primarily intended to support an increased awareness of the social injustice present in the physics community, both in the classroom and the field. If students are already aware of the injustice, the action items generated at the end can be emphasized more.

At the end of the unit, we offer resources for students interested in learning more. For example, those interested in learning more about privilege could read about The Invisible Knapsack,13 Critical Whiteness Studies,22 or other readings from a bibliography on incorporating equity into research.23

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**Table II. Student-generated action items from small group brainstorm session.**

<table>
<thead>
<tr>
<th>Theme</th>
<th>Example Quotes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Go out and do something</td>
<td>“Volunteer in ethnically diverse areas”</td>
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<tr>
<td></td>
<td>“Tutoring outside of schools”</td>
</tr>
<tr>
<td></td>
<td>“Create study groups”</td>
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<tr>
<td>Be aware of your own biases</td>
<td>“Don’t expect your classmates to have same experience”</td>
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<tr>
<td></td>
<td>“Get to know them first”</td>
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<tr>
<td></td>
<td>“Notice and reflect”</td>
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<tr>
<td></td>
<td>“Recognize your own implicit bias”</td>
</tr>
<tr>
<td></td>
<td>“Be aware of stereotypes”</td>
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<tr>
<td>Be kind to others</td>
<td>“Treat others how you want to be treated”</td>
</tr>
<tr>
<td></td>
<td>“Encourage someone”</td>
</tr>
<tr>
<td></td>
<td>“Micro-encouragements”</td>
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<tr>
<td></td>
<td>“Be inclusive to everyone”</td>
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<tr>
<td></td>
<td>“Don’t come across as hostile”</td>
</tr>
<tr>
<td>Educate yourself on other cultures</td>
<td>“Learn about stereotypes”</td>
</tr>
<tr>
<td></td>
<td>“Think about being in someone else’s position”</td>
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<tr>
<td></td>
<td>“Go to other countries” / “Go study abroad”</td>
</tr>
<tr>
<td></td>
<td>“Listen to music from other cultures”</td>
</tr>
<tr>
<td>Speak out</td>
<td>“Speak up and speak out against injustices”</td>
</tr>
<tr>
<td></td>
<td>“Share your own perspectives”</td>
</tr>
<tr>
<td></td>
<td>“Saying nothing is contributing to the problem”</td>
</tr>
<tr>
<td></td>
<td>“Convincing people it’s a problem”</td>
</tr>
<tr>
<td></td>
<td>“Promoting awareness on social media”</td>
</tr>
<tr>
<td></td>
<td>“Don’t be afraid to talk about it”</td>
</tr>
<tr>
<td>Listen and talk to people outside of your race and culture</td>
<td>“Ask real questions”</td>
</tr>
<tr>
<td></td>
<td>“Listen to other people’s stories”</td>
</tr>
<tr>
<td></td>
<td>“Don’t run away from opportunities to have conversations”</td>
</tr>
<tr>
<td></td>
<td>“Listen, no matter how uncomfortable it may be”</td>
</tr>
<tr>
<td>Change institutional structures</td>
<td>“Mentor programs”</td>
</tr>
<tr>
<td></td>
<td>“Make better education”</td>
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<tr>
<td></td>
<td>“Sensitivity training for faculty”</td>
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<tr>
<td>Other</td>
<td>“Support organizations”</td>
</tr>
<tr>
<td></td>
<td>“Make an effort to raise your children with no implicit bias”</td>
</tr>
<tr>
<td></td>
<td>“Promote stereotype breaking role models”</td>
</tr>
</tbody>
</table>
Conclusion

In this paper, we have offered an example of a unit that supports students in reflecting on issues of equity in physics. This unit is a work in progress and the authors would be eager to interact with those who are interested in discussing these ideas further. This unit has been designed for instructors who want to implement discussions about racial equity in predominantly white settings. Those classrooms with a majority of students from underrepresented groups will likely focus on different aspects of the discussion. Some instructors may choose to also focus on gender equity (adding statistics on women in physics and the IAT regarding gender and career to the unit). There are myriad paths to follow depending on the needs, interests, and experiences of the students in each class. We acknowledge that implementing these types of discussions in a physics classroom can be daunting and feel difficult. However, we call on our fellow physics instructors to take action by talking about these issues—the status quo of ignoring racial equity in favor of “covering” more material is discouraging students from underrepresented groups and we need to make change.

Acknowledgments

The authors are grateful to SPU’s Department of Physics, especially Dr. Kara Gray for her constructive critique and use of this unit, and to the reviewers and editors of this special issue for their tireless and excellent feedback that helped shape this paper.

References

7. Though gender inequity is also a possible pathway, we chose to focus on racial inequities for this particular unit.
15. Students were randomly assigned to a number between 100 and 9999.
20. S. Fries-Britt, J. Johnson, and B. Burt, Black Students in Physics: the Intersection of Academic Ability, Race, Gender, and Class (Living at the intersections: Social identities and black …, 2013).
24. abigail.daane@gmail.com

Abigail R. Daane is an assistant professor in the Department of Physics at Seattle Pacific University; she was the original lead instructor and the designer of the equity unit presented in this paper. Having taught at many levels (incl. 6-12, university, and inservice teacher professional development), she is working to increase access and inclusion across varied instructional environments.

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Sierra R. Decker is an undergraduate pursuing a major in mathematics and a minor in physics, as well as a secondary teaching license at Seattle Pacific University. She has worked as an LA in introductory physics and is eager to begin teaching in the fall. After working to revise the equity unit presented in this paper she plans to provide her future students opportunities to engage in issues of equity.

Vashli Sawtelle is an assistant professor of physics in the Lyman Briggs College and the Department of Physics & Astronomy at Michigan State University. Her work over the past decade has focused on understanding how learning environments are designed to support (or inhibit) students from diverse background in their learning physics.
Diversity Can Benefit Teamwork in STEM

by Jennifer Weaver, PhD

- The majority of research in STEM fields is conducted through collaborations and working groups, where a diversity of ideas need to be proposed and analyzed to determine the best strategy(ies) for solving a problem.
- As research projects in STEM inherently require creativity and innovation, teamwork can be enhanced by having members with a diversity of perspectives, backgrounds, and experiences.
- The best STEM assignments need to allow for creativity, innovation and collaboration, otherwise students may not benefit.
- Strategies for creating teams in the classroom: division by i) random assignment, ii) student choice, iii) complementary student thinking preferences / skill sets, or iv) shared interests.

When trying to solve complex problems, progress often results from diverse perspectives. That is, the ability to see the problem differently, not simply “being smart,” often is the key to a breakthrough. As a result, when groups of intelligent individuals are working to solve hard problems, the diversity of the problem solvers matters more than their individual ability. Thus, diversity is not distinct from enhancing overall quality—it is integral to achieving it.

- The Difference, Scott E. Page

Why is diversity beneficial for teamwork in STEM classes?

Diversity = differences, whether in race, sex, ethnic background, disability, nationality, etc. And without different viewpoints, experiences, knowledge and perspectives, necessary processes for innovation in STEM, such as creativity, critical analysis and conflict, can not occur (or can not occur to the same extent). As research projects in STEM inherently require creativity and innovation, teamwork can be enhanced by having a group composed of diverse members. These differing viewpoints and perspectives can also help students in understanding a problem collectively, or viewing it in a variety of ways that can enrich their comprehension and depth of understanding.

Why do STEM students need to learn how to work in diverse teams?

In academia, the majority of research in STEM fields is conducted through collaborations and working groups, where a diversity of ideas need to be proposed and analyzed to determine the best strategy(ies) for solving a problem. In the technology sector, product development is done as a team, with specific roles for each individual but its success is predicated on each member of the team providing a different skill set / perspective. Thus, students who are interested in both academia and industry will benefit from learning how to successfully work in a diverse team.

Creating teams in your classroom that are diverse AND successful

There are numerous strategies for creating groups in the classroom:

Random. Randomly assigning students to teams ensures that there will be diversity, without you imposing your own strategy for diversity. If you use a random approach, justify that you want the teams to be heterogeneous because you feel the variety will be beneficial to each of the teams, and that you want them to use this variety to improve their team functioning as well as their final product.
**Student Choice.** If you decide to allow students choose their own teams, be explicit about what the project is and the objectives of the team project. Try to highlight perspectives, skills and experience that will be useful in the group, and this may temper the reaction of students to only chose their friends, or at a minimum, to choose amongst their friends for this project more carefully! In addition, you could impose some structure to the team formation, for example, by splitting the class into those who are available before lecture to meet and those who are not, and then allow them to self-select within these pre-determined groups. It is especially worth investing more time in building successful teams when it is a semester-long project, and students may benefit from “speed”-team-building (a take-off on speed-dating) where they have a set amount of time to discuss their project ideas with other members of the class.

**Student Skill Sets / Thinking Preferences.** If possible, it would be beneficial to create teams of students with complementary skill sets or thinking preferences. For example, you could conduct a brief “thinking preferences” activity with your students (See: [http://en.wikipedia.org/wiki/Herrmann_Brain_Dominance_Instrument](http://en.wikipedia.org/wiki/Herrmann_Brain_Dominance_Instrument)). Based on a self-reflection of the way they think and interact, students will determine one of the four dominant ways of thinking that is most indicative of themselves. This could also be done based on skill sets. Teams could then be formed based on having at least one representative of the dominant skills sets or thinking preferences. Encourage students to share their traits with their fellow group members. When each group has a better understanding of how their composite members think and what their skillsets are that they can contribute to the group, the group will already function better as a team and have a better chance at capitalizing on each of the students’ skills.

**Shared Interests.** Finally, Sara Beckman, from the Haas School of Business, suggests forming teams around shared interest in a topic. In her class, students propose ideas they want to work on and then submit their top five choices for projects. The instructors form teams based on students’ choices, and attempt to mix students from different backgrounds on the teams.

**Some Final Thoughts….**

1) To structure teamwork to be more inclusive, define the necessary roles within the group (don’t let particular groups of students fall into stereotypical roles or roles with less responsibility) and also be sure to structure teamwork such that not only are the learning outcomes strictly defined, but also the parameters of how the team will function.

2) Ensure that you are creating teamwork assignments that lend themselves to the diversity of your classroom and the work environments your students will enter upon graduation. Assignments need to allow for creativity, innovation and collaboration, otherwise students may not benefit from teamwork at all, and will resent working with others when they do not see a clear benefit above completing the project individually.

3) Give students a primer on how to work well in teams (this can either be done in class, as homework or as part of a tutorial with the GSIs). It can be eye-opening how little some students know about how to work successfully in teams (and this probably applies at the faculty level as well if we are honest!). The key to success is also knowing what the key strategies are for team success and armed with this information, students can capitalize on working in a diverse team.

**Suggested References**

[http://teaching.berkeley.edu/teaching-mixed-leveldisparate-class](http://teaching.berkeley.edu/teaching-mixed-leveldisparate-class)
**What is the normative body in STEM?**

In my discipline, a successful, competent researcher must be able to ____________:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Yes</th>
<th>To some extent</th>
<th>Not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manipulate lab equipment</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Operate equipment in the field</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Work independently</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Work for long periods of time without significant breaks</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Write quickly</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>See instruments</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Navigate rough terrain in the field</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Have focused attention for long periods of time</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Climb</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Interact with large numbers of people</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Work around multiple chemicals</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Hear co-workers</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Differentiate color</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Work at a computer</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Move quickly</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Sit for long periods of time</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Make auditory observations</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Work in close physical proximity to co-workers</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Sit for long periods of time</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Spend long hours, even days and weeks, in the field</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>Talk to co-workers</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>Understand nonverbal communication</td>
<td>☐</td>
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<td>☐</td>
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<tr>
<td>Make visual observations</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Swim</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>Lift up to 50 pounds</td>
<td>☐</td>
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DRIVING WHILE BLACK OR BROWN

A MATHEMATICS PROJECT ABOUT RACIAL PROFILING

BY ERIC (RICO) GUTSTEIN FOR A MORE UPDATED VERSION USING GRAPHING CALCULATORS AND MORE RECENT DATA. SEE WWW. RETHINKINGSCHOOLS.ORG/MATH

I did this project in 7th- and 9th-grade classes, using Chicago and Illinois data, but you can modify it for your setting. The project takes three to five class periods. Begin with a discussion of racial profiling and students' experiences with and knowledge of it. I've often started by showing the first eight minutes of the film The Hurricane and stopping right after Denzel Washington asks the police, "Any two will do?" as the police cars slowly surround the car he is in. The prompt to students is: "What did Denzel mean?" and "What are your experiences with driving while black or brown?"

End with a discussion of what we can and cannot know from our mathematical analysis, what are our "open" questions, what are the complexities in understanding racism, and what we can do about racial profiling.

The purpose of this project is to investigate racial profiling, also known as "Driving While Black" or "Driving While Brown." African Americans and Latinos/os have complained, filed suit, and organized against what they believe are racist police practices: being stopped, searched, harassed, and arrested because they "fit" a racial profile.

But is this true? How can we know? Can mathematics be a useful tool in helping us answer this question?

PART 1: REVIEW BASIC PROBABILITY IDEAS
To understand racial profiling, students need to understand several concepts: randomness, experimentation, simulation, sample size, experimental and theoretical probability, and the law of large numbers (which says the more experiments you run, the closer you come to theoretical probabilities). Acquainting students with these concepts can be as simple as having pairs of students toss a coin 100 times and record their results, and then combining the data from all student pairs and examining how the combined data comes closer to a 50-50 split than do the individual pairs.

PART 2: FIND CHICAGO'S RACIAL BREAKDOWN (DONE WITH CENSUS 2000 DATA)
Give each group of students a small bag with colored cubes to represent the racial breakdown. I used nine black cubes (for African Americans), nine tan (whites), six red (Latinas/os), and one yellow (Asians/Pacific Islanders/Native Americans) to approximate Chicago's proportions. Do not tell students how many cubes total or of each color there are.

Have students in small groups pick a cube without looking, record its color, and replace the cube. Repeat this 100 times. After every 10 picks, have them record the totals on a chart (see page 18). Each line in the chart is the cumulative total of picks. Tell students that they are conducting an experiment (picking/replacing 100 times), collecting data (recording each pick), and analyzing data (determining from their simulation how many cubes of each color are in the bag, the total number of cubes, and the Chicago racial/ethnic percentages).

Make sure students record the fraction and percentage of each race/ethnicity for every 10 picks on the chart. This will help them see how the probabilities converge as the number of picks increases. If you combine all class data (e.g., on the board), you will see the law of large numbers in operation.

QUESTIONS FOR EACH GROUP
Emphasize that you want thorough explanations for all questions.

1. What do you think is in the bag? Why? [Ask this before combining all class data, then after combining]
2. What happened as you picked more. What do you think would happen if you picked 1,000 times? 1,000,000 times?

PART 3: INVESTIGATING DWB
Here are sample Illinois data based on police reports from 1987–1997:

- In an area of about one million motorists, approximately 28,000 were Latinos.
- Over this period, state police made 14,750 discretionary traffic stops (for example, if a driver changes lanes without signaling or drives one to five miles per hour over the speed limit, police may stop her or him but do not have to).
- Of these stops, 3,100 were of Latino drivers.

Have students use what they learned in part 2 and set up their own simulation of this situation using cubes (in this example, one could use three different-colored cubes out of 100, or one out of 28, to approximate the ratio of Latino drivers). Have them pick and replace a cube 100 times, record the data, and calculate the results of simulating 100 or more "discretionary" stops.

MORE GROUP QUESTIONS
3. What percentage of the motorists in part 3 were Latinos?
4. What percentage of the discretionary traffic stops involved Latinos?
5. How did you set up the simulation for part 3 (how many "Latino" cubes and how many total)? Why did you choose those numbers?
6. In your simulation, how many Latinos were picked out of 100 picks, and what percentage is that?
7. Do the results from your simulation experiment support the claim of racial profiling? Why or why not?

Combine individual groups' results and analyze as a whole class.

INDIVIDUAL WRITE-UP WITH POSSIBLE QUESTIONS
1. What did you learn from this activity?
2. How did mathematics help you do this?
3. Do you think racial profiling is a problem, and if so, what do you think should be done about it?
4. What questions does this project raise in your mind?

End with whole-class discussion.
CHAPTER FIVE

Reading the World with Math

Goals for a Criticalmathematical Literacy Curriculum

BY MARILYN FRANKENSTEIN

When my students examine data and questions, such as the ones on unemployment in the box on page 34, they are introduced to the four goals of criticalmathematical literacy:

1. Understanding the mathematics.
2. Understanding the mathematics of political knowledge.
3. Understanding the politics of mathematical knowledge.
4. Understanding the politics of knowledge.

Clearly, calculating the various percentages for the unemployment rate requires goal number 1, an understanding of mathematics. Criticalmathematical literacy goes beyond this, to also include the other three goals mentioned above.

The mathematics of political knowledge is illustrated here by reflecting on how the unemployment data deepen our understanding of the situation of working people in the United States. The politics of mathematical knowledge involves the choice of who counts as unemployed. In class, I emphasize that once we decide which categories make up the numerator (number of unemployed) and the denominator (total labor force), changing that fraction to a decimal fraction and then to a percent does not involve political struggle—it involves understanding the mathematics. But making the decision of who counts where does involve political struggle—so the unemployment rate is not a neutral description of the situation of working people in the United States. And this discussion generalizes to a consideration of the politics of all knowledge.

In this article, I develop the meaning of these goals, focusing on their interconnected complexity. Underlying these ideas is my belief that the development of self-confidence is a prerequisite for all learning, and that self-confidence develops from grappling with complex material and from understanding the politics of knowledge.

**Goal 1: Understanding the Mathematics**

I teach at the College of Public and Community Service at the University of Massachusetts-Boston. My students are primarily working-class adults who did not receive adequate mathematics instruction when they were in high school. Almost all my students know how to do basic addition, subtraction, multiplication, and division, although many would have trouble multiplying decimal fractions, adding fractions or doing long division. All can pronounce the words, but many have trouble succinctly expressing the main idea of a reading. Almost all have trouble with basic math word problems. Most have internalized negative self-images about their knowledge and ability in mathematics. In my beginning lessons I have students read excerpts where the main idea is supported by numerical examples.
Details and where the politics of mathematical knowledge is brought to the fore. Then the curriculum moves on to the development of the Hindu-Arabic place-value numeral system, the meaning of numbers, and the meaning of the operations. I start lessons with a graph, chart, or short reading which requires knowledge of the math "skill of the day." When the discussion runs into a question about a math skill, I stop and teach that skill. This is a non-linear way of learning basic numeracy, because questions often arise that involve future math topics. I handle this by previewing: The scheduled topic is formally taught, while other topics are also discussed. In this way students' immediate questions about other topics are answered, and when the formal time comes for those topics in the syllabus, students will already have some familiarity with them. For example, if we are studying the meaning of fractions and find that in 1985, two hundredths of the U.S. Senate was female, we usually preview how to change this fraction to a percent. We also discuss how no learning is linear, and how all of us are continually reviewing, re-creating, and reviewing in the ongoing process of making meaning.

Further, there are other aspects about learning which greatly strengthen students' understandings of mathematics:

- Breaking down the dichotomy between learning and teaching mathematics.
- Considering the interactions of culture and the development of mathematical knowledge.
- Studying even the simplest of mathematical topics through deep and complex questions.

These are explained in more detail below.

**Breaking Down the Dichotomy Between Learning and Teaching Mathematics.** When students teach, rather than explain, they learn more mathematics, and they also learn about teaching. They are then empowered to learn even more mathematics. As humanistic, politically concerned educators we often talk about what we learn from our students when we teach. Educator Peggy McIntosh goes so far as to define teaching as "the development of self through the development of others."

Certainly when we teach, we learn about learning. I also introduce research on math education, so that students can analyze for themselves why they did not previously learn mathematics. I argue that learning develops through teaching and through reflecting on teaching and learning. So students' mathematical understandings are deepened when they learn about mathematics teaching as they learn mathematics teaching. Underlying this argument is Paulo Freire's concept that learning and teaching are part of the same process, and are different moments in the cycle of gaining existing knowledge, re-creating that knowledge, and producing new knowledge.

Students gain greater control over mathematical problem-solving when, in addition to evaluating their own work, they can create their own problems. When students can understand which questions it makes sense to ask from given numerical information, and can identify decisions that are involved in creating different kinds of problems, they can more easily solve kinds of problems others create. Further, critical mathematical literacy involves both interpreting and critically analyzing other people's use of numbers in arguments. To do the latter you need practice in determining what kinds of questions can be asked and answered from the available numerical data, and what kinds of situations can be clarified through numerical data.

Freire's concept of problem-posing education emphasizes that problems with neat, pared-down data and clear-cut solutions give a false picture of how mathematics can help us "read the world." Real life is messy, with many problems intersecting and interacting. Real life poses problems with solutions that require dialogue and collective action. Traditional problem-solving curricula isolate and simplify particular aspects of reality in order to give students practice in techniques. Freirean problem-posing, on the other hand, is intended to reveal the interconnections and complexities of real-life situations, even if the specific problems are not solved.

A classroom application of this idea is to have students create their own reviews and tests. In this way they learn to grapple with mathematics pedagogy issues such as: What are the key concepts and topics to include in a review of a particular curriculum unit? What are clear, fair, and challenging questions to ask in order to evaluate understanding of those concepts and topics?

**Considering the Interactions of Culture and the Development of Mathematical Knowledge.** When we are learning the algorithm for comparing the size of numbers, I ask students to think about how culture interacts with mathematical knowledge in the following situation: Steve Lerman was working with two 5-year-olds in a London classroom. As he recounted:

[They] were happy to compare two objects put in front of them and tell me why they had chosen the one they had [as bigger]. However, when I allocated the multilink to them (the girl had eight and the boy had five) to make a tower ... and I asked them who had the taller one, the girl answered correctly but the boy insisted that he did. Up to this point the boy had been putting the objects together and comparing them. He would not do so on this occasion, and when I asked him how we could find out whose tower was the taller he became very angry. I asked him why he thought that his tower was taller and he just replied "Because it is!" He would go no further than this and seemed to be almost on the verge of tears.

At first students try to explain the boy's answer by hypothesizing that each of the girl's links was smaller than each of the boy's, or that she built a wider, shorter tower. But after reading the information, they see that this could not be the case, since the girl's answer was correct. We speculate about how Real life poses problems with solutions that require dialogue and collective action.

The culture of sexism—that boys always do better or have more girls—blocked the knowledge of comparing sizes that the boy clearly understood in a different situation.

**Studying Mathematical Topics Through Deep and Complicated Questions.** Most educational materials and learning environments in the United States, especially those labeled as "developmental" or "remedial," consist of very superficial, easy work. They involve rote or formulaic problem-solving experiences. Students get trained to think about successful learning as getting high marks on school or standardized tests. I believe this is a major reason that what is learned is not retained and not used. Further, making the curriculum more complicated, so that each problem contains a variety of learning experiences, teaches the students the non-linear, holistic way in which knowledge is developed in context. This way of teaching leads to a clearer understanding of the subject matter.

**Example.** In the text below, writers Holly Sklar and Charles Sleicher demonstrate how numbers presented out of context can be very misleading. I ask students to read the text, which is taken from a February 1990 letter published in Z magazine, and discuss the calculations Sklar and Sleicher performed to get their estimate of the U.S. expenditure on the 1990 Nicaraguan election ($17.5 million divided by the population of Nicaragua equals $5 per person). This reviews their understanding of the meaning of the operations. Then I ask the students to consider the...
ACTIVITY BOX

USING MATH TO TAKE A CRITICAL LOOK AT HOW THE UNEMPLOYMENT RATE IS DETERMINED

BY MARILYN FRANKENSTEIN

In the United States, the unemployment rate is defined as the number of people unemployed divided by the number of people in the labor force. Here are some figures from December 1994. (All numbers in thousands—that is, these figures are one thousandth of the actual total—rounded off to the nearest hundred-thous-

1. 101,400 employed full time
2. 19,000 employed part time, want part-time work
3. 4,000 employed part time, want full-time work
4. 6,600 not employed, looked for work in last month, not on temporary layoff
5. 1,100 not employed, on temporary layoff
6. 400 not employed, want a job now, looked for work in last year, stopped looking because discouraged about prospects of finding work
7. 1,400 not employed, want a job now, looked for work in last year, stopped looking for other reasons
8. 60,700 not employed, don’t want a job now (adults)

In your opinion, which of these groups should be considered unemployed? Why?

Which should be considered part of the labor force? Why?

DO THE MATH

Given your selections, calculate the unemployment rate in 1994.

FOR DISCUSSION

The U.S. official definition counts 4 and 5 as unemployed and 1 through 7 as part of the labor force, giving an unemployment rate of 5.1 percent. If we count 4 through 8 plus half of 3 as unemployed, the rate would be 9.3 percent. Further, in 1994 the Bureau of Labor Statistics stopped issuing its U-7 rate, a measure which included categories 2, 3, 6, 7, and 8, so now researchers will not be able to determine “alternative” unemployment rates.

READING THE WORLD WITH MATH

complexities of understanding the $17.5 million expenditure. This deepens their understanding of how different numerical descriptions illuminate or obscure the context of U.S. policy in Nicaragua, and how in real life just comparing the size of the numbers, out of context, obscures understanding.

On the basis of relative population, Holly Sklar has calculated that the $17.5 million U.S. expenditure on the Nicaraguan election is $5 per person and is equivalent to an expenditure of $1.2 billion in the United States. That’s one comparison all right, but it may be more relevant to base the comparison on the difference in per capita income [between U.S. and Nicaraguan citizens], which is at least 30/1 or an equivalent expenditure expenditure in the United States of a staggering $36 billion! Is there any doubt that such an expenditure would decisively affect a U.S. election?

Goal 2: Understanding the Mathematics of Political Knowledge

I argue, as do educators Paulo Freire and Donaldo Macedo, that the underlying context for critical adult education, and criticalmathematical literacy, is “to read the world.” To accomplish this goal, students need to learn how mathematics skills and concepts can be used to understand the institutional structures of our society. This happens through:

- Understanding the different kinds of numerical descriptions of the world (such as fractions, percents, graphs) and the meaning of the sizes of numbers.
- Using calculations to follow and verify the logic of someone’s argument, to restate information, and to understand how raw data are collected and transformed into numerical descriptions of the world. The purpose underlying all calculations is to better understand information and arguments, and to be able to question the decisions that were involved in choosing the numbers and the operations.

Example: I ask students to create and solve some mathematics problems using the information in the following article, which appeared in the April 29–May 5, 1992, edition of In These Times magazine. Doing the division problems implicit in this article deepens understanding of the economic data and shows how powerfully numerical data reveal the structure of our institutions.

It may be lonely at the top, but it can’t be boring—at least not with all that money. Last week the federal government released figures showing that the richest 1 percent of American households was worth more than the bottom 90 percent combined. And while these numbers were widely reported, we found them so shocking that we thought they were worth repeating. So here goes: In 1989 the top 1 percent of Americans (about 934,000 households)

ELECTRICITY COSTS

Declining block-rate payment structure

6 cents/kwh

3 cents/kwh

2 cents/kwh

0

200

400

600

800

1000

1200

1400

CENTS PER KILOWATT HOUR

KILOWATT HOURS PER MONTH
fractions and other times uses whole numbers. Information about the politics of knowledge is included as a context in which to set her views. Historian Howard Zinn writes:

Although Helen Keller was blind and deaf, she fought with her spirit and her pen. When she became an active socialist, a newspaper wrote that "her mistakes spring out of the ... limits of her development." This newspaper had treated her as a hero before she was openly socialist. In 1911, Helen Keller wrote to a suffragist in England: "You ask for votes for women. What good can votes do when ten, elevenths of the land of Great Britain belongs to 200,000 people and only one eleventh of the land belongs to the other 40 million people! Have your men with their millions of votes freed themselves from this injustice?"

Example: Students are asked to discuss what numerical understandings they need in order to decipher the following data. They see that a recognition of how very small these decimal fractions are, so small that watches cannot even measure the units of time, illuminates the viciousness of time-motion studies in capitalist management strategies.

Example: Students are asked to discuss how numbers support Helen Keller's main point and to reflect on why she sometimes uses

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Goal 3: Understanding the Politics of Mathematical Knowledge

Perhaps the most dramatic example of the politics involved in seemingly neutral mathematical descriptions is the choice of a map to visualize that world. Any two-dimensional map of our three-dimensional Earth will contain mathematical distortions. (See the Mercator and Peters maps, pages 192 and 193.)

The political struggle/choice centers around which of these distortions are acceptable to us, and what other understandings of ours are distorted by these false pictures. For example, the world map with which most people are familiar, the Mercator map, greatly enlarges the size of "Europe" and shrinks the size of Africa. Most people do not realize that the area of what is commonly referred to as "Europe" is smaller than 20 percent of the area of Africa. Created in 1569, the Mercator map highly distorts land areas, but preserves compass direction, making it very helpful to navigators who sailed from Europe in the 16th century.

When used in textbooks and other media, combined with the general (mis)perception that size relates to various measures of so-called "significance," the Mercator map distorts popular perceptions of the relative importance of various areas of the world. For example, when a U.S. university professor asked his students to rank certain countries by size they "rated the Soviet Union larger than the continent of Africa, though in fact it is much smaller," because they were associating "power" with size.

Political struggles to change the Peters projection, a more accurate map in terms of land area, have been successful with the U.N. Development Program, the World Council of Churches, and some educational institutions. However, anecdotal evidence from many talks I've given around the world suggests that the Mercator is still widely perceived as the way the world really looks.

In order for us as poor and oppressed people to become a part of a society that is meaningful, the system under which we now exist has to be radically changed. This means that we are going to have to think in radical terms.

I use the term "radical" in its original meaning—getting down to and understanding the root cause. It means facing a system that does not lend itself to your needs and devising means by which you change that system.

That is easier said than done. But one of the things that has to be faced is, in the process of wanting to change that system, how much have we got to do to find out who we are, where we have come from and where we are going. ... I am saying, as you must say too, that in order to see where we are going, we not only must remember where we have been, but we must understand where we have been.

— Ella Baker, 1969

As Denis Wood writes in his book The Power of Maps, "The map is not an innocent witness ... silently recording what would otherwise take place without it, but a committed participant, as often as not driving the very axes of identifying and naming, bounding, and inventoring it tends to no more than observe."

In a variety of situations, statistical descriptions don't simply or neutrally record what's out there. There are political struggles/choices involved in: which data are collected, which numbers represent the most accurate data, which definitions should guide how the data are counted, which methods should guide how the data are collected, which ways the data should be disaggregated, and which are the most truthful ways to describe the data to the public.
Example: To justify the Eurocentric argument that the Native American population could not have been so great, various "scholars" have concluded that about one million people were living in North America in 1500. Yet, as related in The State of Native America, edited by Annette James, other academics have argued, on the basis of burial mound archeology and other evidence, that the population of the Ohio River Valley alone had been that great, and that "a pre-contact North American Indian population of 15 million is perhaps the best and most accurate working number available." Admitting the latter figure would also require impressive demographic and agricultural institutions, as opposed to the less reliable hunting and gathering. Cultivators of land are "primarily sedentary rather than nomadic ... and residents of permanent towns rather than wandering occupants of a barren wilderness."

Example: In 1988, the U.S. Census Bureau introduced an "alternative poverty line," changing the figure for a family of three from $9,453 to $8,580, thereby preventing 3.6 million people whose family income fell between those figures from receiving food stamps, free school meals, and other welfare benefits. At the same time, the Joint Economic Committee of Congress argued that "updating the assessment of household consumption needs ... would almost double the poverty rate, to 24 percent."

Note that the U.S. poverty line is startlingly low. Various assessments suggested that the smallest amount needed by a family of four to purchase basic necessities in 1991 was 155 percent of the official poverty line. John Schwartz and Thomas Volgy wrote in the Feb. 15, 1993, issue of The Nation magazine:

Since the [census] bureau defines the [working poor] out of poverty, the dominant image of the poor that remains is of people who are unemployed or on the welfare rolls. The real poverty line reveals the opposite: A majority of the poor among able-bodied, non-elderly heads of households normally work full time. The total number of adults who remain poor despite normally working full time is nearly 10 million more than double the number of adults on welfare.

Two thirds of them are high school or college educated and half are over 35 years old. Poverty in the United States is a problem of low-wage jobs far more than it is of welfare dependency, lack of education, or work inexperience. Defining families who earn less than 155 percent of the official poverty line as poor would result in about one person in every four being considered poor in the United States.

Example: The U.S. government rarely collects health data broken down by social class. In 1986, when it did this for heart and cerebrovascular disease, it found enormous gaps. As Vicente Navarro wrote in the April 15, 1991, issue of The Nation:

The death rate from heart disease, for example, was 2.3 times higher among unskilled blue-collar operators than among managers and professionals. By contrast, the mortality rate from heart disease in 1986 for blacks was 1.3 times higher than for whites. ... The way in which statistics are kept does not help to make white and black workers aware of the commonality of their predicament.

Goal 4: Understanding the Politics of Knowledge

There are many aspects of the politics of knowledge that are integrated into this curriculum. Some involve recontextualizing what counts as mathematical knowledge and re-presenting an accurate picture of the contributions of all the world's peoples to the development of mathematical knowledge. Others involve how mathematical knowledge is learned in schools. British educator Richard Winter, for example, theories that the problems so many encounter in understanding mathematics are not due to the discipline's "difficult abstractions," but due to the cultural form in which mathematics is presented. Likewise, Holly Sklar cites a U.S. study that recorded the differential treatment of black and white students in math classes:

Sixty-six student-teachers were told to teach a math concept to four pupils—two white and two black. All the pupils were of equal, average intelligence. The student-teachers were told that in each set of four, one white and one black student were intellectually gifted and the others were labeled as average. The student teachers were monitored through a one-way mirror to see how they reinforced their students' efforts. The "superior" white pupils received two positive reinforcements for every negative one. The "average" white students received one positive reinforcement for every negative one. The "average" black students received 1.5 negative reinforcements, while the "superior" black students received one positive response for every 3.5 negative ones.

Class discussion of the above study can lead to examining these ratios and is assisted by creating matrix charts to visualize the data more clearly. Discussion also can involve students in reflecting on topics in mathematics education. This is another example of breaking down the dichotomy between learning and teaching.

Underlying all these issues are more general concerns that should form the foundation of all learning, concerns about what counts as knowledge and why. I think that one of the most significant contributions of Freire to the development of a critical literacy is the idea that "our task is not to teach students to think—they can already think—but to exchange our ways of thinking with each other and look together for better ways of approaching the decodification of an object." This idea is critically important because it implies a fundamentally different set of assumptions about people, pedagogy, and knowledge-creation.

Because some people in the United States, for example, need to learn to write in "standard" English, it does not follow that they cannot express complex analyses of social, political, economic, ethical, and other issues. And many people with an excellent grasp of reading, writing, and mathematics skills need to learn about the world, about philosophy, about psychology, about justice, and about many other areas in order to deepen their understandings.

In a non-trivial way, we can learn a great deal from intellectual diversity. Most of the burning social, political, economic, and ethical questions of our time remain unanswered. In the United States we live in a society of enormous wealth, yet we have significant hunger and homelessness; although we have engaged in medical and scientific research for scores of years, we are not much closer to changing the prognosis for most cancers. Certainly we can learn from the perspectives and philosophies of people whose knowledge has developed in a variety of intellectual and experiential conditions.

Freire reminds us that currently "the intellectual activity of those without power is always labeled non-intellectual." When we see this as a political situation, as part of our "regime of truth," we can realize that all people have knowledge, all people are continually creating knowledge and doing intellectual work, and all of us have a lot to learn.  

This article was adapted from a version that originally appeared in Beyond Heroes and Holidays (see Resources, page 267). For a listing of all citations and references included in the original article, see www.rethinkingschools.org/math.
THE WAR IN IRAQ

HOW MUCH DOES IT COST?

BY BOB PETERSON

Estimating the cost of the war in Iraq is like shooting at a moving target. The costs continue daily in amounts that many people cannot even imagine. For example, according to the website of the National Priorities Project, www.costofwar.com, by the end of January 2013, the cost of the war was over $810 billion. This is in addition to the $530 billion military budget that the U.S. Congress appropriated for fiscal year 2012.

There is a great deal of debate about how much should be spent on the military so that the United States is well-defended. Some people argue that if money spent on the military was instead spent on combating U.S. and global social and economic problems, we’d all be much safer.

Dwight D. Eisenhower, Commander of Allied Forces in Europe during World War II and the 34th president of the United States (and a Republican), said on April 16, 1953: “Every gun that is made, every warship launched, every rocket fired, signifies in the final sense a theft from those who hunger and are not fed, those who are cold and are not clothed.”

TOP GLOBAL PROBLEMS AND
THE MONEY NEEDED TO SOLVE THEM

In 2000, the United Nations Millennium Summit brought together the largest gathering of world leaders in history to address global poverty. They agreed to eight Millennium Development Goals, and a time frame from 2000 to 2015 to reach these goals. The estimated cost for achieving these goals is $120–$190 billion per year.

Goal 1: Cut extreme poverty and hunger in half.
Goal 2: Achieve universal primary education.
Goal 3: Promote gender equality and empower women.
Goal 4: Reduce child mortality.
Goal 5: Improve maternal health.
Goal 6: Combat HIV/AIDS, malaria, and other diseases.
Goal 7: Ensure environmental sustainability.
Goal 8: Develop a global partnership for development.

DO THE MATH AND QUESTIONS FOR DISCUSSION

1. Assume you are able to set a $1 bill down on your desk every second without stopping. First have each student in your group record on paper your estimates of how long it would take to set down $1 million, $1 billion, and $156 billion. After recording your guesses, use a calculator to figure out how long each would take. Compare your estimates to your calculated answer.

2. Using the www.costofwar.com website, estimate how U.S. taxpayers’ money is spent on the war each second, each minute, each hour, each day, and each week.

3. Look at the estimate of how much it would cost to reach the Millennium Development Goals set by the United Nations. How does the total cost compare to the cost of the war in Iraq?

4. A full scholarship to an out-of-state, four-year, major university like the University of Wisconsin–Madison—including dorm fees, food, books, tuition, and other fees—is worth about $41,000 a year. Calculate how many high school seniors could receive a fully paid four-year college education if the monies spent on the Iraq war—as of January 2013—had been set aside for college scholarships instead.

5. A group called the National Priorities Project has estimated the amount of taxes that people in different states and cities have paid to fund the war in Iraq. Go to their website, www.nationalpriorities.org, and find your state and/or city. Using this number, calculate how many additional teachers and nurses could be hired in your community, assuming that each of them made the average national salary for their profession. In 2010-11 the national average teacher salary was $56,069 and the national average nurse salary in 2011 was $67,800.

6. Re-read the above quotation from former President Eisenhower. What do you think about the quotation and how does it relate to our current political situation?

7. Develop a short presentation for the class explaining what you learned and what you think about these matters.
CHAPTER SIX

Race, Retrenchment, and the Reform of School Mathematics

BY WILLIAM F. TATE

Teaching of mathematics needs to be connected to the lives and experiences of African American students to enable them to fully participate in our democracy. Traditionally, schools have not provided African American students opportunities to do so.

More than 60 years ago, historian Carter Woodson described this dilemma:

And even in the certitude of science or mathematics it has been unfortunate that the approach to the Negro has been borrowed from a "foreign" method. For example, the teaching of arithmetic in the 5th grade in a backward county in Mississippi should mean one thing in the Negro school and a decidedly different thing in the white school. The Negro children, as a rule, come from the homes of tenants and peons who live to migrate annually from plantation to plantation, looking for light which they have never seen. The children from the

homes of white planters and merchants live permanently in the midst of calculations, family budget, and the like, which enable them sometimes to learn more by contact than the Negro can acquire in school. Instead of teaching such Negro children less arithmetic, they should be taught much more of it than the white children, for the latter attend a graded school consolidated by free transportation when the Negroes go to one-room rented hovels to be taught without equipment and by incompetent teachers educated scarcely beyond the 8th grade.

One important implication of Woodson's argument is that mathematics instruction that is built on a student's life experience provides two mathematics learning environments: within the school and outside the school. Unfortunately, the disciplines that undergird mathematics education—mathematics and psychology—place great stress on objectivity and neutrality. As a result, school mathematics has been tacitly accepted as a colorblind discipline. Thus very little consideration is given to the cultural appropriateness of mathematics pedagogy.

The Current State of Affairs

In recent years, mathematics textbooks have included pictures of African Americans, and some mathematics textbooks provide information about African Americans who have contributed to the development of the discipline of mathematics. These efforts represent progress and should be encouraged. Yet I doubt seriously if these efforts will prove sufficient to enfranchise African American students in mathematics. I contend that connecting the pedagogy of mathematics to the lived realities of African American students is essential to creating equitable conditions in mathematics education.

What type of pedagogy must African American students negotiate to be successful in school mathematics? Conventional mathematics pedagogy emphasizes whole-class instruction, with teachers modeling a method of solving a problem and students listening to the explanation. This is typically followed by having the students work alone on a set of problems from a textbook or worksheet. The goal of this teacher-directed model of instruction is for students to produce correct responses to a narrowly prescribed problem. This type of mathematics pedagogy is consistent with several studies of mathematics instruction conducted in the 1970s.

Unfortunately, this conventional mathematics pedagogy is exactly the kind of "foreign method" of teaching described by Woodson. Few if any attempts are made to build on the thinking and experiences of African American students. One important purpose of mathematics education is to prepare students to incorporate mathematical reasoning and communication into their everyday lives. However, conventional pedagogy has often persuaded students—particularly African American students—to consider school mathematics as a subject divorced from their everyday experiences and from their attempts to make sense of their world.

Today, the "foreign" pedagogy delineated by Woodson continues in many different forms. For example, pedagogy for African American students is hampered by the following conditions of their schooling:

- Persistent tracking.
- Less access than other students to the best-qualified teachers of mathematics.
- Fewer opportunities to use technology in school mathematics.

Moreover, as the proportion of African American students in a school increases, the relative proportion of college-preparatory or advanced sections of mathematics decreases.

What is the effect of the foreign pedagogy on African American students' thinking and achievement in mathematics? Data from the National Assessment of Educational Progress (NAEP) indicate that African Americans, across the grade levels tested, scored significantly
better on portions of the test related to factual knowledge and basic computational skills than they did in previous years. However, no growth was evident on portions of the test that assessed advanced levels of mathematical reasoning. Should we be surprised at these findings? Walter Secada commented on the consistency of the NAEP findings with the pedagogical focus of the previous decade:

Indeed, if we agree that the 1970s and 1980s were times when educational policy was predicated on mastery of basic skills, we could read these data as telling a success story. Insofar as we had set a national goal—the acquisition of basic skills—we moved in the direction of its attainment. African Americans did become proficient in their mastery of low-level basic skills. Alternately, we might read this as a story of incomplete success: Insofar as basic computation skills are deemed insufficient for the knowledge and mastery of mathematics, these data document how much farther we have to go.

**Race, Reform, and Retrenchment**

What role should the reform of school mathematics play in changing this story of incomplete success? Reform documents published by the National Council of Teachers of Mathematics have called for a new vision of mathematics pedagogy. For example, the publication *Professional Standards for Teaching Mathematics* recommends that all mathematics teachers know "how students' linguistic, ethnic, racial, gender, and socioeconomic background influence their learning of mathematics," and "the role of mathematics in society and culture, the contribution of various cultures to the advancement of mathematics, and the relationship of school mathematics to other subjects and realistic application."

Despite such recommendations, mathematics pedagogy built on the lives and experiences of African American students must overcome many formidable barriers if it is to make its way into our classrooms. Many scholars argue that the curriculum and pedagogy of mathematics have been, and continue to be, connected to Eurocentric precepts that exclude the African American experience. For example, George Joseph states:

The progress of Europe and its cultural dependencies (including the United States of America) during the last 400 years is perceived by many as inextricably—and even causally—linked with the rapid growth of science and technology. So in the minds of many, scientific progress becomes a uniquely European phenomenon, to be emulated only by following the European path of social and scientific development.

Joseph's remarks are germane to the current debate involving equity in the reform of school mathematics. Rather than address the problem of how to connect mathematics to the lives of African American students, many advocates of reform have argued that African American students warrant better treatment in mathematics classrooms on the grounds of national economic interest and global competition. For example, a report from the Carnegie Commission on Science, Technology, and Government states:

The national interest is strongly bound up in the ability of Americans to compete technologically. This requires not only an adequate supply of scientific and technical professionals but a workforce able to solve problems and use the tools of a knowledge-intensive economy. All young people, including the non-college-bound, the disadvantaged, and young women must be given the opportunity to become competent in science and mathematics.

Arguments based on the need to prepare workers for life in a global economy, while persuasive to the public, generally overlook the problems facing African American students in many school settings. Michael Apple suggests that these appeals to economic self-interest are attempts to persuade educators to compromise their beliefs about individual human rights because of the current fierce global competition for economic prosperity. The tension between mathematics pedagogy that is connected to the experiences of African American students (an individual human right) and the national economic interest is real and can be a barrier preventing educators from seeking equity in mathematics education.

The documents that have spawned the movement to reform mathematics education have called for a new era of "mathematics for all.” These documents have embraced the idea of improving the mathematics performance of African American students in our nation's urban centers, but achieving this objective will require a blueprint. As Larry Cuban warned, "Unless policymakers and practitioners begin to consider how problems involving schools are framed, they will continue to hunger for quick solutions without considering the fit between the solution and the problem."

The current reform movement in mathematics education has been framed within a discussion of national economic interests. This focus raises questions about the ability of current reforms to generate interest in pedagogical practices that go beyond those intended to yield gains for the national economy. I contend that the educators and policymakers leading the mathematics reform movement should address two questions related to the problems facing African American students in mathematics classrooms across the United States. First, should school districts support (and teachers provide) mathematics teaching built on the experiences and lives of African American students? And second, should the focus of mathematics teaching be to prepare African American students
to participate in the national economy or in our democracy? Both questions are extremely complex and probably do not have one right answer. However, I will devote the remainder of my discussion to examples that help illuminate the urgency of these questions.

“Centricity” and Pedagogy

I have argued that one barrier to an equitable mathematics education for African American students is the failure to “center” them in the process of knowledge acquisition and to build

“Almost all the experiences discussed in American classrooms are approached from the standpoint of white perspectives.”

their cultural and community experiences. Molefi Asante defines the concept of centricity as “a perspective that involves locating students within the context of their own cultural references so that they can relate socially and psychologically to other cultural perspectives.”

The concept of centricity can be applied to any culture. “For the white students in America,” Asante continues, “this is easy, because almost all the experiences discussed in American classroom are approached from the standpoint of white perspectives and history.”

The idea that mathematics pedagogy should be built on the experiences of the student is undergoing a resurgence in the current reform movement. Yet very little has been written about building a mathematics program centered on the thinking and experiences of African American children. I offer two examples of the influence of mathematics pedagogy that has not been constructed to center the African American child.

The first example is based on an experience with a student teacher at my university. She provided her class with the following problem: Joe has five pumpkin pies. Karen has six pumpkin pies. How many pumpkin pies do Karen and Joe have all together?

This problem was written on the chalkboard when I entered the classroom. Five children were seated in the room—one African American and four whites. This was a 2nd-grade class at the beginning of a school year. These five students were provided separate mathematics instruction so that they could receive individualized attention to help improve their performance. The four white children were busy using manipulatives and appeared excited about the process of solving the problem. On the other hand, the African American child was not engaged in any outward activity. He was very quiet and appeared uninterested.

I asked the student teacher about the African American student’s behavior. She replied, “Mark does not like math. I don’t understand why, he’s not a bad kid.” Curious, I inquired about the discussion that led to the pumpkin pie math problem. The student teacher responded, “I used pumpkin pie as the object to be added because Thanksgiving is in two weeks.” She went on to say that she wanted to motivate the students to solve a problem related to their holiday experience. In essence, she was trying to center the students in the process of knowledge acquisition. She was using a cultural construct—Thanksgiving pumpkin pies—as the means of centering her students. Yet her attempt to center the African American student was unsuccessful.

I asked the student teacher if she thought every family ate pumpkin pie on Thanksgiving. Her response: “Probably.” I asked her to ask each of the five children in the class. She discovered that pumpkin pie was indeed a Thanksgiving ritual in the homes of the white children. For the African American child, however, sweet potato pie was the dessert of the day. Thus the background discussion that led to the problem was “foreign” to this student.

The student teacher had worked to provide the children in her class with what she thought was a problem centered in the context of their lives. Yet the problem reflected the default position of an idealized white middle-class reality. The mathematics problem and her pedagogy were unwittingly constructed to be the property of white children.

At another point here: I am not suggesting that all African American families celebrate Thanksgiving in the same way or that all white families do either. Rather, I contend that the default position of mathematics curriculum, assessment, and pedagogy is often more closely aligned with the idealized experience of the white middle class. Moreover, this reality is subtle and often difficult to diagnose. The diagnosis is difficult because, traditionally, mathematics has been viewed as neutral and objective.

Implicit Assumptions

This leads to my second example: A group of teachers from an urban middle school discovered this very point when a large number of students at their predominantly African American school responded "strangely" to an assessment item on a districtwide mathematics test. The basic structure of the test item was as follows: It costs $1.50 each way to ride the bus between home and work. A weekly pass is $16. Which is the better deal, paying the daily fare or buying the weekly pass?

The district’s test designers constructed the problem on the assumption that students who solved the problem correctly would choose to pay the daily fare. Implicit in the design of the test item is the notion that all people work five days a week. It is also assumed that the employee has only one job. Yet these assumptions are not consistent with the daily lives and realities of many African American students. Thus it should not have been shocking that a large percentage of the students in this particular middle school thought that buying the weekly pass was the better option.

When school officials questioned the students about their responses, they found that many of the students had centered themselves in

“Grandma understood many things that are barely recognized in the wider educational world even today. For example, she realized that arithmetic is injurious to young minds and so, after I had learned my tables, she taught me algebra. . . . She thought that . . . drill was satisfying. The result was that I was not well-drilled in geography and spelling. But I learned to observe the world around me.”

— Margaret Mead, reflecting on her own education at home
knowledge about mathematics risk being put down for focusing on "extraneous matters." As a result, many African American students view mathematics as a subject appropriate only for white males, and they fail to see the relevance and usefulness of the discipline. A closer look through a centric framework reveals important details about the Eurocentric terrain that the children in this urban middle school had to negotiate in order to claim ownership of the mathematics presented on their test. First, the students had to understand that the model of response should reflect the idealized experiences of a traditional white middle-class family. Second, the students had to understand the mathematics involved in solving the test item using the white middle class as a frame to guide their problem-solving. This dual consciousness was required if the students were to "succeed" according to the Eurocentric assumptions of the test designers.

**Dominant Culture**

Is the first level of consciousness fair or empowering to African American students whose experiences are not those of the white middle class? William James provides what I consider an appropriate response to this question.

The advocacy of the values and lifestyles of the dominant white culture is not and cannot be psychologically beneficial to blacks. The dominant cultural value system, and that of the school, admonishes black students for being what they are, while physical and social reality prevents them from being anything else.

In order to take advantage of the diversity in a single classroom, a mathematics teacher’s pedagogy should try to provide students with opportunities to solve problems using their experiences. Of course, the mathematical processes used to solve problems should be consistent with the contexts of students’ lives. Furthermore, mathematics teachers working from a centric perspective would endorse having their students solve the same problem from the perspective of different members of the class, school, and society. This approach is consistent with the methods of successful teachers of African American children. Gloria Ladson-Billings found that these teachers looked to connect students’ knowledge of self with broader social and political realities.

**Conflict, Democracy, and Pedagogy**

A second barrier to providing an equitable mathematics education for African American students is the failure to prepare them for the conflicts of democracy.

Traditionally, mathematics education has been connected to issues of national economic survival, rather than to the development of democratic citizenship through critical thinking in mathematics. The latter involves helping students engage in mathematical thinking that is connected to the students’ social and political contexts. The intent of this pedagogy is twofold: First, students are being prepared to take an active role in our democracy; and second, students are provided important insight into, and understanding of, the role of mathematics within the democratic system of governance. Until recently, embedding mathematics pedagogy within social and political contexts was not a serious consideration in mathematics education. The act of counting was viewed as a neutral exercise, disconnected to politics or society. Yet when do we ever count just for the sake of counting? Only in school do we count without a social purpose of some kind. Outside of school, mathematics is used to advance or block a particular agenda. However, mathematics curriculum and pedagogy rarely prepare the African American student to engage in authentic contexts of democracy.

There is a growing consensus among scholars that knowledge is constructed through the interaction of the mind and authentic experiences. For example, John Seely Brown and his colleagues have theorized that in-school knowledge is acquired by working alone, memorizing static rules for well-defined problem settings. Acquiring knowledge of mathematics in this type of setting makes transfer difficult. In contrast, out-of-school knowledge is obtained by working in social settings in which it is important to know the reason for a conflict, to solve ill-defined problems, and to construct personal (i.e., centric) meaning. The activity, context, and culture of the learning environment are reference points for the retrieval, interpretation, and use of mathematical knowledge. A child’s construction of meaning is a result of social interactions—the negotiation of understanding that derives from engaging in real activities of the culture.

Perhaps an example of the work of a practicing teacher will illustrate how mathematics pedagogy can build on the personal and social perspectives. The "War Room" is occupied by Sandra Mason’s students. The 10 students in her class have targeted 25 problems that they feel are negatively affecting their community, including the 13 liquor stores within a 1,000-foot radius of the school. Each member of the class has been greatly influenced by the presence of the liquor stores (i.e., the problem is centric). For example, one female student commented: "We pass by drunks asking us for money. We keep going but they harass us and tell us to come here."

The students have found that the disproportionate number of liquor stores in their community is a function of local legislation. To resolve the conflict between the local liquor laws and their negative experiences, the students have formulated and proposed mathematically based economic incentives to get liquor stores to relocate away from the school.

For Mason’s students, mathematics is thus more than just numbers shorn of context (i.e., in-school knowledge). Instead, mathematics is embedded within the culture of their daily struggles. These students are learning to use mathematics to support their political positions. For example, the students in this class have mastered the relationship between media “sound bites” and mathematics, because Mason has prepared them to ask and answer several questions, using mathematics, that will be important in launching arguments for their position or countering the arguments of their opponents. For example: What methods of mathematical analysis will best support our position? What variables should be included in our analysis to strengthen our position? How can we minimize the influence of variables that may weaken our position? Will percentages or raw numbers make a more striking impression?

These questions are integral aspects of "mathemathizing" in our society. Yet such questions are rarely found in the sources that guide the development of mathematics reform. An African American child will confront similar "mathemathized" renditions of social reality every day. For instance, the battle over the appropriate
use of racial categories in the U.S. census is still being waged. The struggle over the construction of racial categories for the census is one of the most technically complex and socially relevant debates of our time. When will African American and other children encounter such a debate in school mathematics? Will the traditional curriculum and pedagogy of mathematics prepare our children to ask the types of questions that are necessary for participation in a democracy?

The use of math in our democratic society is almost always linked to an attempt to secure control of property.

Mathematical Production and Conflict
I propose the need for a mathematics curriculum and pedagogy that recognize mathematical production as a function of conflict on two levels.

First, like all communities, the mathematics community is governed by stated rules and a covert value system. Within this community, individuals and groups of mathematicians have a significant history of struggle over what is deemed appropriate knowledge for the discipline. The many other issues over which battles have raged within this community include the interpretation of data, credit for discovering ideas, and censorship. The very nature of mathematical production involves conflict. Yet traditional mathematics classrooms are structured to rank students’ understanding of a body of static ideas and procedures. Hidden from the students is the role of conflict in advancing mathematical thought.

Second, the use of mathematics in our democratic society is almost always linked to an attempt by one group or individual to secure control of property. This means a social, political, and/or economic conflict will necessarily ensue.

In economic terms, there are two conditions at work when issues are mathematized. First, situations are mathematized in order to maximize the return on the information that is being analyzed. Thus mathematics pedagogy should seek to prepare students to answer the following question: What agenda is being maximized by a given example of mathematizing?

For example, hospitals have experimented with computer systems that can calculate the probability of surviving an illness, based on specific variables about the patient. This development provides teachers with an opportunity to explore with their students a mathematized situation. For instance, decisions to place patients on life-support systems could be influenced by the mathematical models used by the computer. Mathematizing the decision to place a patient on life support—under the banner of optimizing systems use, minimizing hospital cost, and maximizing profits—could result in discriminatory practices. Adapting the personal (centric) and social (conflict) perspectives would lead mathematics teachers to explore a variety of questions with their classes. What variables are included in this model? How do variables such as gender, family history, and income influence a patient’s chances of receiving life-support services? Does being an African American male lower a patient’s chances of receiving life-support services, since, comparatively speaking, African American males have a shorter life expectancy? In essence, does the computerized mathematical model reinforce existing survival rates?

The second reason situations are mathematized is to minimize the risk of successful challenges to the decision-making process.

How many students leave school with enough knowledge and practice to challenge the use of mathematics in society? Thus far, it has been the case that those few who have learned to use mathematics as a tool to guide their own decision-making have stifled the voices of the large segment of the population that does not know how to counter with their own mathematically based arguments—a disproportionate number of whom are African Americans.

Learning to Analyze Mathematized Situations
If students learn in school to analyze and critique mathematized situations, such as the hospital computer system described above, they will be prepared for public discussions about the development and implementation of the new models that are used in social decision-making. Such preparation is radically different from merely prepping students to add, subtract, multiply, and divide accurately. Our highly technological society requires that all, not just African American, students be prepared to use mathematics to defend their rights. The curriculum and pedagogy of mathematics should support this objective.

I have argued that African American students should be provided a mathematics pedagogy that is built on their cultural experiences. Furthermore, I contend that this mathematics pedagogy should prepare African Americans and others to participate in our democracy. Traditionally, these two recommendations have not been part of the "mainstream" discourse on school mathematics. More recently, standards for school mathematics reform have called for pedagogy that recognizes these objectives. However, research suggests that many educators will most likely implement only those mathematics standards that are consistent with their own beliefs about appropriate mathematics pedagogy.

Will teachers and other educators view as important the dual need to build on students' personal experiences and to empower them to function in a democracy? Will they move to change current practice? Woodson provides an appropriate ending to this discussion:

In the first place, we must bear in mind that the Negro has never been educated. He has merely been informed about things which he has not been permitted to do. The Negroes have been shoved out of the regular schools through the rear door into the obscurity of the backyard and sold to imitate others whom they see from afar, or they have been permitted in some places to come into the public schools to see how others educate themselves. The program for the uplift of the Negro in this country must be based upon the scientific study of the Negro from within to develop in him the power to do for himself.

The prospect of a new beginning for mathematics education rests with the ability of mathematics teachers to provide pedagogy that builds and expands on the thinking and experiences of African American students. Moreover, this pedagogy should focus on prepping these students to function within our democracy.

This article is adapted from a version that originally appeared in Phi Delta Kappan magazine. For a link to all references and citations included in the original article, see www.rethinkingschools.org/math.
ENVIRONMENTAL HAZARDS

IS ENVIRONMENTAL RACISM REAL?

BY LARRY MILLER

This activity makes use of an interactive online map maintained by the U.S. Environmental Protection Agency (EPA), which shows the location of environmental hazards in considerable detail.

The purpose of this activity is to investigate whether environmental racism is real.

PROCEDURE

1. With students, identify the zip codes in the area in which they live (or in some urban area).
2. Go online to the interactive map at http://www.epa.gov/myenvironment/. Type in a zip code or city and state, and click the “Create My Window” button. A map of the selected area will appear.
3. Click the “regulated sites” button in the left-column list. This will bring up a sub-list including “multiple activities,” “Superfund,” “toxic release,” “water discharge,” “air emissions,” and “hazardous waste.”
4. Click on each of these areas. Then click “redraw map” at the top of the left column. A new map will appear showing all the identified EPA sites in that area.
5. Have students follow the procedure for steps 6 through 10 below.
6. Count the number of city blocks shown on the map from east to west, and divide that number by 12 to determine the length in miles. Do the same from north to south.
7. Multiply the length by the width in miles to get the size of the zip code area in square miles.
8. Count the number of identified EPA sites (all colors) on the map.
9. Put the number of sites in ratio to the square miles. This is the density (number of sites per square mile.)
10. Divide the number of sites in a zip code by the square miles. This will give density per square mile. This ratio is needed to compare zip code areas because of their different sizes.

continued on next page

ENVIRONMENTAL HAZARDS

11. Repeat steps 2 through 10 using the zip code of an adjacent suburban area.
12. Compare the density of hazardous sites in students’ neighborhoods or the urban area to the density in the suburbs. (In Milwaukee, students see a huge disproportion when they compare the ratios found in the city and the suburbs.)
13. Have students read this definition of environmental racism:

   Environmental racism is racial and class discrimination in environmental policymaking and the enforcement of regulations and laws; it is the deliberate targeting of people of color and their communities for toxic and hazardous waste facilities and the sanctioning of the life-threatening presence of poisons and pollutants in poor communities and communities of color.

14. Students then answer and discuss the question: “Is environmental racism real?”
15. Have students visit the Voices from the Grassroots website, www.ejrc.ca.edu/voicesfromthegrassroots.htm, to read reports from around the country about the environmental justice movement and report on their findings to the rest of the class.

For a detailed description of how one class took action based on this lesson, see www.rethinkingschools.org/math.

STUDENTS FROM LARRY MILLER’S CLASS HELPED EXPOSE A TOXIC MESS IN THEIR NEIGHBORHOOD.
Mathematics education dates its beginnings to the time when human beings began to quantify the objects and phenomena in their lives. Although the process of counting (one, two, three ...) was the same for different groups of people around the world, the symbols by which they represented specific quantities varied according to their own particular cultural conventions. Thus, the Babylonians, Romans, Hindus, Egyptians, Angolans, Chinese, Aztecs, Incas, Mayas, and other groups each wrote numbers differently.

Likewise, cultures that achieved a level of mathematical sophistication that allowed them to manipulate their number symbols to add, subtract, multiply, and divide and to perform other algorithms did so in different ways. Today, even within a single society, various groups of people (for example, accountants, physicists, engineers, mathematicians,
For Chicano students in particular, studying pre-Columbian mathematics will allow them to learn more about their ancestors in both cultural and mathematical contexts. This integrated approach can do much to instill pride in their culture and also increase their confidence in their ability to learn and do mathematics and, perhaps, later participate in mathematics-based careers.

Chicanos are mestizo, a blend of European and Mexican Indian ancestry. In this country, the cultural roots of Chicanos in pre-Columbian cultures are acknowledged at the social level but are usually ignored in the American educational system. In a scene in the movie Stand and Deliver, teacher Jaime Escalante attempts to motivate his Chicano mathematics students at Garfield High School in East Los Angeles by saying: "You burros have math in your blood." Escalante's comment surely will seem sadly ironic to readers familiar with the statistics regarding the low educational achievement of many Chicano students, and familiar with both the history of mathematics in Maya and Aztec societies and the relatively minuscule number of Chicanos who pursue mathematics-based careers in the United States.

Despite a long and distinguished heritage in the sciences, arts, and letters in their own culture, Chicanos are one of the least educated groups in this country. Their impressive history of cultural achievement has been almost entirely ignored in U.S. schools for at least two reasons. First, the Western orientation of the educational process largely disregards the achievements of conquered indigenous civilizations and their descendants, such as Mexican people. Second, as a result of this ethnocentric orientation, many teachers and other school officials in the United States are unaware of the mathematical accomplishments of pre-Columbian societies.

This article discusses a pre-Columbian number system that played an important role in the cultural activities—such as commerce and dating historical events—and the development of Mesoamerica. (The term "Mesoamerica" refers to the geographical region that encompasses the area from northern-central Mexico to northern Costa Rica.) In this essay, I discuss the Mesoamerican number system and the origins of the vigesimal numeral system, and make some instructional suggestions.

**The Mesoamerican Number System**

The Mesoamerican number system is a positional vigesimal (that is, base 20) system. It employs only three symbols to write any whole number from zero to whatever quantity is desired. This symbol represents 0:

![Symbol](image)

The dot represents the quantity of 1: •

And the horizontal bar represents the quantity of 5:

To write the numbers 0 to 19 in this system, the two processes of grouping and addition are used. Numbers 2 to 4 are written using an addition process. For the number 5, five dots are grouped into a horizontal bar. Numbers 6 to 19 are written using the addition process (see Figure 1).

For numbers larger than 19, a vertical positional convention is used (see Figure 2). In this convention, the bottom level is for the units, the next level up is for the 20s, the third level up is for the 400s (1 x 20 x 20), the fourth level up is for the 8,000s (1 x 20 x 20 x 20), and so on in powers of 20. For instance to write 20, we write the symbol for 0 in the first level and a dot in the second level. To write 65, we write three dots in the second level (3 x 20 = 60) and a horizontal bar, representing five units, in the first level.

This vigesimal system of numeration is practical to use and can easily be adapted to classroom instruction. For example, the operations of addition and subtraction are relatively straightforward processes. In the case of addition, one has to remember that since 20 units in a lower level are equivalent to one unit in the next level up, 20 units in a lower level are replaced with one dot in the level above it. Figure 3 shows the sum of 8,095 plus 1,166, before and after the grouping process.

This addition example points to rich mathematical experiences in which students can be engaged. Unfortunately, beyond addition, subtraction, and associated algorithms, we do not know whether the Mesoamerican civilizations knew how to multiply, divide, or perform other mathematical algorithms with this vigesimal system. But we do know that the Maya wrote books on paper just as we do. We know that for 1,600 years before Columbus accidentally arrived in the "New World," the Maya wrote and kept thousands of books in which they recorded their history and cultural achievements.

Tragically, however, the Spanish conquerors and missionaries burned and otherwise destroyed all of the Mayan libraries and archives. Possibly some of those destroyed books contained information on algorithms and other mathematical systems that pre-Columbian societies devised. We know that Mayan astronomers had calculated the cycles of the heavens so exactly that they could predict solar and lunar eclipses to the day, hundreds of years in advance. For example, a Mayan astronomer predicted, some 1,200 years in advance, the solar eclipse that occurred on July 11, 1991.

The Maya knew the synodical revolution of Venus, and some scholars argue that the Maya also knew the synodical period of Mars and perhaps had parallel knowledge about Mercury, Jupiter, and Saturn. Given their ability to make these predictions as well as to predict celestial phenomena, it is reasonable to believe that they knew how to perform mathematical algorithms other than addition and subtraction.
This belief is rooted in the origins and uses of their vigesimal number systems.

**Origins of the Vigesimal Number System**

Archaeologists and other scholars maintain that humans first inhabited North America around 30,000 years ago and, in particular, Mexico about 9,000 years later. Groups of hunters and gatherers roamed Mesoamerica for thousands of years before they became sedentary. Jacques Soustelle pins down the advent of agriculture in Mesoamerica at approximately 4000 B.C. However, the organized life that can be called civilization in the region began approximately 5,000 years ago. The social evolution of Mesoamerica can be traced from the hunter-gatherers through the successive civilizations of the Olmecs, Zapotecs, Mayas, Toltecs, Aztecs, and so forth.

The earliest evidence of numerical inscriptions that used positional systems of bars and dots has been traced to the Olmecs in approximately 1200 B.C. This date is significant, since some 800 years before Aristotle, Plato, and Euclid (whose society did not have a positional number system) began making contributions to Western culture, the Olmecs were already using a positional system. It is worth noting that it was not until 499 A.D. that the Hindu-Arabic number notation using zero in a positional convention first occurred.

The Zapotec of Oaxaca used the Mesoamerican vigesimal system in their calendars between 900 and 400 B.C. (Between 400 B.C. and 300 B.C., the Izapan culture used the same convention). Later, the Mayas, to whom the vigesimal system is mistakenly attributed, used this system extensively, between 199 A.D. and 900 A.D. The Mayas developed their amazingly complex calendar system and astronomical sciences around this mathematical system hundreds of years before the achievements of Galileo and Copernicus.

**Recommendations to Teachers**

The pre-Columbian positional number system can be taught at various educational levels. As we have already seen, it could be included in the elementary school curriculum as a way to deepen how students understand the decimal system. In fact, the Mesoamerican system may be easier for children to grasp than the decimal system! The vigesimal system is visual, and the representation of quantities involves only three symbols—0, 1, and 5—and manipulative materials can be adapted to give them physical representation.

For example, Dienes blocks can be adapted to the Mesoamerican base 20 system. Teachers can assign to the smallest blocks the value 1, to the intermediate-sized blocks the value 5, and to the larger blocks or to a group of four intermediate-sized blocks the value 20. Alternatively, in classrooms that do not have Dienes blocks but have manipulative materials of different colors and sizes (rods or chips), different colors or sizes of rods or chips can be used for 1, 5, and 20.

At the middle school and high school levels, discussion of this number system can be included in social studies classes as well as mathematics classes, to broaden students appreciation of the cultural achievements of ancient peoples and the fate of conquered civilizations. Teachers can use this topic to illustrate that impressive mathematical achievements of Mesoamerican civilizations were ignored, devalued, or destroyed as part of the rationale for subjugation and domination.

For presentations in social studies courses, a map of Mesoamerica is indispensable and can be obtained from the National Geographic Society (for additional sources, see Resources, page 269).

**ACTIVITY BOX**

**THE HIDDEN GRAIN IN MEAT**

**BY STEPHANIE KEMP**

One billion of the world’s people do not get enough to eat, yet half the grain grown in the world is fed to livestock. Why? To fatten the cattle up for sale to people who can afford to buy meat. Chronically hungry people rarely have the money to buy meat.

Most cattle today do not graze freely on pasture grasses—if they did, their meat would be leaner and healthier. Instead, they are penned up in crowded “feedlots” and given large quantities of grain. The meat from grain-fed cattle is higher in fat.

For every 16 pounds of grain fed to a cow, we get only one pound back in meat on our plates. Producing that pound of meat requires 2,500 gallons of water. In many areas of the world, people do not have access to even a small amount of clean drinking water and must walk miles a day to get it.

**DO THE MATH**

If your entire class went to McDonald’s and each student ate one Quarter-Pounder, how much grain was used to produce the class’s lunch? How much water was used?

**EXplain why you think this is or is not a problem. If it is a problem, what are possible solutions?**

Teachers can consult other references for more details on the historical origins and uses of this numerical system and for more information on the pre-Columbian cultures who used it.

In mathematics classes at the middle school and high school levels, students can explore interesting mathematics through the Mesoamerican vigesimal system. Teachers can devise exercises comparing the polynomial representation of numbers in our decimal system and the vigesimal system. For example, students can explore interesting mathematics by relating powers of 10 to the value of digits in numerals in the decimal number system and the value of units in the vigesimal system: While the value of a digit in the decimal system is multiplied by a power of 10 that corresponds to the place of the digit of the numeral, the value of the same number of units in the same corresponding place in the vigesimal system is multiplied by a power of 20. This can lead to discussions about powers of 20 as a product of powers of two and powers of 10, to illustrate that the value of units in the vigesimal system increases exponentially faster than the value of the corresponding units in the decimal system. This in turn can serve as a natural introduction to topics related to exponential growth and exponential functions.

Furthermore, in mathematics classes where students are already proficient with the usual algorithm for multiplication in the decimal system (in grades 5 through 12), teachers can also include classroom activities or homework assignments requiring students to use their creativity when working with the vigesimal system. For instance, the teacher could break the class into groups of three or four students each and ask the groups to generate ideas of how to carry out multiplication in this number system. This idea can be extended to include division as well. These challenging assignments may turn into group projects that can last for an extended period of time.

Given the sophisticated system of ancient Mesoamerican mathematics and the gross under-representation of Chicanos in mathematics-based careers in the United States, the comment of Jaime Escalante to his students is indeed sardonic. The legacy of racist discrimination against the cultures and native peoples of Mesoamerica, which resulted from the military conquests and colonization ushered in by Columbus’s arrival in the “New World,” has continued to this day in the imperialistic practices of U.S. society. It has resulted in an educational system in this country which effectively ignores the rich tradition of excellence in mathematics in the Chicano students’ background and fails to instill in young Chicanos a sense of pride in their heritage and a positive self-image.

Despite all this, some modern Chicano mathematicians have made valuable contributions to applied and abstract mathematics—David Sánchez, Richard Griego, Manuel Berriozabal, Richard Tapia, and Bill Velez, to name a few. Their contributions should be used to encourage Chicano students to pursue the exceptional mathematical heritage of their pre-Columbian ancestors. □

This article was adapted from a version which first appeared in Radical Teacher magazine.
GLOBALIZATION, LABOR, AND THE ENVIRONMENT

A LINEAR PROGRAMMING UNIT

BY INDIGO ESMONDE AND JESSICA QUINDEL

Story problems often ask students to put themselves in someone else's shoes and to make decisions for them. Students are discouraged from questioning the contexts of these problems and from using their values and outside knowledge to make sense of them.

We decided to design a six-to-eight-week linear programming unit (based on the "Cookies" lesson in the Integrated Mathematics Program of the National Council of Teachers of Mathematics) that encourages students to challenge the problem context and come up with more equitable contexts of their own.

The following problem is one of the unit problems, which students work on for several weeks. Their job is to advise the CEO of a shoe manufacturing company.

sWOOsh Inc. is a new shoe manufacturer trying to introduce their product into the marketplace. They have decided to do an initial manufacturing run of two types of shoes: a basketball shoe and a skateboarding shoe. They need to decide how many of each type of shoe to make.

OPTION 1: INDONESIA

They pay workers about $750 to make 100 pairs of basketball shoes in this nonunionized factory in Indonesia and $375 to make 100 pairs of skateboarding shoes. (The workers are paid by the hour, so these are estimates based on how long it takes to make each kind of shoe.)

To make 100 pairs of basketball shoes, they need 50 square feet of synthetic material and 50 square feet of leather. To make 100 pairs of skateboarding shoes, they need 100 square feet of synthetic material.

The duties and shipping for one flat of 100 pairs of basketball shoes is the same as the cost for one flat of 100 pairs of skateboarding shoes: $700.
sWOOsh is sure that they can sell as many shoes as they produce. Their decision is limited by the following constraints: They have budgeted $15,000 for labor and $17,500 for shipping; they have 2,200 square feet of synthetic material, and 900 square feet of leather.

They want to make the most profit possible. The manufacturer's profit is $1,200 for 100 pairs of basketball shoes and $800 for 100 pairs of skateboarding shoes. How many flats of each type of shoe should they make?

As students learn about linear inequalities, we want them to also learn about global inequalities. Therefore we provide texts and videos for students to learn about globalization and the economic and environmental impact of sweatshop manufacturing.

OPTION 2: CALIFORNIA
The shoes are manufactured at a union shop in California: Labor costs increase, shipping/duties decrease, materials are the same, and profits decrease. Students start to understand how the choice of different amounts for the variables influences the outcomes for the situation.

EXPLORING FURTHER
Above is just one example of a problem that students explore in this unit. Other problems that students explore help them to understand the mathematics of linear programming and to learn more about economics and globalization. We provide text and video resources for students to do background research into these topics. For the culminating project in this unit, we organize a debate in which students make recommendations about where the shoes should be produced and under what conditions. Students represent environmentalists, domestic labor, Indonesian labor groups, and corporate interests and are required to use mathematical evidence in their arguments.
Chapter Nineteen

Radical Equations

By David Levine


In Radical Equations: Math Literacy and Civil Rights, veteran civil rights activist Robert Moses collaborates with journalist Charles E. Cobb to offer a stirring account of the Algebra Project, a reform initiative designed to help African American students achieve a high level of mathematical competency. The book raises important issues about both math education and the struggle for racial equity within our schools.

The Algebra Project focuses mainly on the middle school years, when Moses and his colleagues believe African American children must be prepared to enter high school math classes, which will open the door to higher education and technical careers requiring a strong math background. It encompasses new curricular materials, teacher training, the development of student leadership, and community involvement well beyond the scope of most educational reform efforts.
From a modest beginning in Cambridge, Mass., the program has grown into a national network with 18 sites, over 100 schools, and 40,000 students. As a member of the Student Nonviolent Coordinating Committee (SNCC), Moses pioneered voter registration work in Mississippi during the early 1960s. Through his soft-spoken courage and patient encouragement of local leadership, he played a crucial role in building the movement, which overturned state-sanctioned segregation and disenfranchisement in the South. After a sojourn in Tanzania, where he and his wife, Janet, taught school, he and his family moved to Boston.

By 1982, Moses had been tutoring his eldest child Maisha in math for years. He believed she was ready for algebra, a subject not offered for eighth graders at her Cambridge school. Since Maisha rebelled against having to do "two maths"—her regular schoolwork and the algebra tutorials her father insisted upon—he convinced her teacher to let him come to school to tutor her during the day. Soon he was working with a small group of students, and the Algebra Project was underway. As the program grew, it also became a family collaboration—Moses' wife and children, Maisha, Omo, Taba, and Malika, all came to play important roles.

In the early 1990s, Moses convinced a colleague and now a senior writer for allAfrica.com present the Algebra Project as a spiritual descendant and practical continuation of their organizing in Mississippi 50 years ago. They argue that the Civil Rights Movement's undeniable achievements in winning civic empowerment and formal equality for African Americans failed to overcome the economic servitude still endured by millions of black Americans.

This failure has been exacerbated by profound technological changes. Farm mechanization has reduced the 110,000 agricultural jobs in the Mississippi Delta during the 1960s to just 17,000 jobs today, reflecting a national erosion in semi-skilled and unskilled jobs in the industrial sector. At the same time, the computer revolution has generated the need for "knowledge workers" with strong academic skills. Cobb and Moses contend that poor (and poorly educated) white, black, and Latino students of today are the equivalent of Mississippi's disenfranchised black sharecroppers of the 1960s, "trapped at the bottom with prisons as their plantations."

More specifically, they argue that mastery of the increasingly technological workplace depends on increasingly sophisticated math skills, including algebra. "People who don't have it [algebra] are like the people who couldn't read and write in the industrial age," they argue.

To help African American students master mathematical literacy, the program has replaced traditional, rote-bound instruction with imaginative activities that engage student creativity and encourage sophisticated mathematical reasoning. An African drums curricular unit is designed to pair a drummer and a teacher in lessons which teach 4th and 5th graders about ratios, proportions, fractions, and rates. In his work with high school geometry classes, Moses encourages students to pose their own versions of geometric proofs on the classroom wall, to be analyzed and possibly challenged by their classmates.

For the 6th-grade curriculum, which forms a bridge from arithmetic into algebraic thinking, Moses designed a five-step learning process. The students first observe or experience a physical event. For example, in a unit on positive and negative numbers, Cambridge students begin with a subway ride during which the teacher asks questions that focus their attention on their shifting environment. They then draw pictures, construct models, or in some other way create a representation of the event. The following step is to write a description of the event in their own language. Next, each class member translates her or his description into "relegated English," highly compact language which moves them into a mathematical mode, and from which they finally render the event as a mathematical expression. This five-step process helps students gain a firm grasp of mathematical ideas, connect math to everyday life, and become comfortable communicating in the language of mathematics. Similar classroom practices in geometry and algebra courses encourage students to debate mathematical problems and actively construct their own understanding of math concepts.

The Algebra Project's pedagogy is not unique. It resonates with the experiential, inquiry-based approach advocated by the National Council of Teachers of Mathematics (NCTM) and resembles intellectually robust math instruction that can be found in some classrooms around the country. But the grassroots organizing philosophy of the program offers a dramatic departure from many mainstream reform efforts.

The grassroots organizing philosophy of the Algebra Project offers a dramatic departure from many mainstream reform efforts.
is successful at turning out large numbers at demonstrations but often neglects the day-to-day work that builds powerful and sustained grassroots involvement.

For the Algebra Project, "organizing in the spirit of Ella" rests on three principles:
1. The centrality of families to the work of organizing. When Moses and other young organizers reached the Mississippi Delta, they connected with strong local leaders. Often, these leaders would involve family members in the movement, helping to create crucial networks of political activities. The Algebra Project seeks to involve the families of students and other community members in committees which run the local projects.

2. Organizing in the context of the community in which one lives and works. The young civil rights workers were absorbed into local families, who fed and housed them and protected them from hostile whites. This helped the activists "sink deep roots into the community." The Algebra Project also operates on the idea that staff members should be fully immersed in the communities which host local projects.

3. Young people need to be empowered to fight for their own liberation. Moses points out that high school and college-age young people provided some of the crucial leadership of the Civil Rights Movement. He believes that the reforms necessary for young black people to achieve deep math literacy will only come about when they become ardent and savvy advocates for their own education. Through the program's Young People's Project, for example, students tutor their peers, lead workshops for students and adults, and help plan and run math youth camps during the summer.

Algebra: A Key to Economic Liberation?

One of the book's core arguments is that students must master algebra to succeed in the workplace of the future. They cite Labor Department statistics that 70 percent of current jobs require "technology literacy" and that by 2010 all jobs would require "significant technical skills." Increasingly, essential technological expertise has come to mean relatively sophisticated understanding of how to use computers to perform a multitude of vocational tasks. To fully master computers, they argue, students need to be comfortable manipulating symbolic representations which represent "underlying mathematical concepts." They further argue that our society has designated algebra as the place where young people acquire such skills.

This cornerstone argument needs further documentation to be fully creditable. The phrases "technology literacy" and "significant technical skills" are quite general. We need to know if such literacy and skills specifically include algebraic thinking. Another issue is the varied impact of increased computer use on different occupations. The computerization of a job does not always bring the need for more sophisticated intellectual skills. Many low-paying service jobs have incorporated computer use which requires learning some new procedures, but not mastering substantially more demanding cognitive tasks. The authors would have been more persuasive if they had offered concrete examples of how algebraic skills are used in particular jobs, and evidence that such jobs are or will become a major part of our evolving economy.

Nevertheless, Cobb and Moses are not wrong to assert that algebra functions as a crucial gatekeeper to full economic opportunity. Even if a young person is not drawn toward a highly technical vocation, high school algebra is usually required for college entry. In addition, algebra provides knowledge necessary for advanced math which prepares students for a number of technical and scientific careers. Too many students of color lose these options through poor math performance before they reach high school. As Cobb and Moses note, part of this problem is reflected in Ph.D. statistics for technical fields. In 1995, blacks were 15 percent of the U.S. population but earned "only 1.8 percent of the Ph.D.s in computer science, 2.1 percent of those in engineering, 1.5 percent in the physical sciences, and 0.6 percent in mathematics." Finally, even though the authors could have presented stronger evidence regarding the relevance of algebra to adult employment, the technological evolution of many occupations does support their case. An understanding of algebraic concepts can help workers become more adept at working with spreadsheets, graphs, and databases. Our computer-based economy increasingly calls for such skills, even outside of highly technical fields.

Is the Program Working?

In assessing initiatives such as Algebra Project, a crucial question is whether the program is meeting its stated goals.

In Bessemer, Ala., teachers at Hart Elementary, a school of mostly poor, black children, started participating in the Algebra Project in the fall of 1991 while teachers at the predominantly white W.H. Hills, one of the "top elementary schools" in the district, continued with traditional math instruction. During a three-year study initiated in 1995, Hart moved from trailing West Hills on standardized math tests by several points to exceeding it by a few points, compiling the highest scores in the district.

Radical Equations and other Algebra Project reports are filled with similar success stories. They also document instances in which Algebra Project students register in greater numbers than their peers in higher-level math courses. As Cobb and Moses tell the Algebra Project story, they weave into their narrative extended testimonials from parents, teachers, and students which provide both penetrating explanations of the reform process and many examples of how the program has helped students learn more.

While the vignettes and overall narrative thread give us a persuasive picture of an effective reform movement, the book would have been strengthened by more systematic documentation and analysis of the program's impact on student achievement. We need to learn more about the extent of the program's success in strengthening students' math abilities, and the classroom dynamics which make such success possible. In-depth case histories of Algebra Project classrooms would be helpful, as would comparisons between the learning experience of students within the program and the learning experience of similar students in traditional math classes.

Research on the project should not fall victim to the popular and crude trend in American education to judge programs mostly by narrow quantitative measures. Cobb and Moses cite increased standardized test scores...
to document the program’s success but realize that such numbers tell only a small part of the story. They examine the Algebra Project’s impact on student motivation and work habits, teacher attitudes and behaviors, and community involvement. Future research should build upon and extend this holistic approach.

Algebra Project Lessons

In a review of school reform during the past century, educational historians Larry Cuban and David Tyack note that innovations often falter because their advocates fail to win political support. Radical Equations does a good job of teasing out insights from the kind of political work which builds durable support for substantive changes in how schools function. It offers a refreshing contrast to glib and self-congratulatory recipes for fixing up schools.

Even after nearly two decades of nurturing the program, Moses writes, “I have thought of the Algebra Project as a young child who is trying to stand up and teetering and falling down a little, then getting back up.” The book pays careful attention to this teetering up and down of small groups of people trying to make their schools better. Cobb and Moses glean insights into the often contentious dynamics of school change from battles with the constraints of rigid standardized testing, uneasy administrators, and bureaucratic fear of innovation. The challenges faced by the Algebra Project affirm what they learned in Mississippi: People have to be willing to change themselves if they are to develop the strengths they will need to change the system.

Beyond the issue of math instruction, the Algebra Project offers compelling lessons on how determined networks of educators, parents, and students can build a program which advances educational equity. Such democratic renewal promises the obvious rewards of promoting academic and vocational success for young people. But perhaps just as important, it also affirms local people’s cultural values and capacity to deepen community life through shaping the public institution most likely to have a profound impact on their children. “Organizing in the spirit of Ella” means school reform which enriches the lives of teachers, community members, and students.

In contrast to top-down reform initiatives which demean the expertise and professional pride of teachers, Moses and his colleagues have developed training programs which build upon their strengths. A Cambridge teacher comments, “Bob was affirming what we were doing while he was helping us change. He didn’t come in and say, ‘We’re throwing this out, it’s junk.’ He came in and said, ‘You guys are great. Wanna try something different?’ When we asked, ‘How will it work?’ he turned around and asked, ‘Well, how do think it should work? What do you want to have happen?’” By posing problems rather than solutions, Moses invites teachers to confront work through the frustration and anxiety of experimenting with new ways of teaching.

Such collaborative processes within the classroom are buttressed by efforts to involve community members. Although the dynamics of community involvement differ from site to site, the project is deeply committed to encouraging local control. During a 1998 visit to the Jackson, Miss., Algebra Project, I talked with Kathy Sykes, who served as a project staff member and representative on the local Site Planning Committee. This group reviewed the program budget, helped plan such activities as student retreats, and encouraged parents to serve as chaperones for program activities. The committee also encouraged parents to sit in on classes and eventually hoped to train parents as classroom assistants. Sykes told me, “I feel this is sort of like a crusade.... I think the work which is going on here will make a difference in the lives of our people and that’s why I want to do what I can to see that it continues.”

The program seeks to instill this spirit of personal responsibility through pedagogy which encourages students to break out of their own passivity and take charge of their own learning. Mary Lou Mehring recounts how 12-year-old student Andrea Harvey asserted, “I’m going to do four lessons a week because I want to finish such-and-such by the 7th grade, so that I can finish the book by the 8th grade, so I can be in honors geometry in the 9th grade.” Andrea went on to work with the Algebra Project and eventually become certified to teach math in the Boston schools. As a continuation of the Civil Rights Movement, the Algebra Project places itself firmly in the tradition of education aimed at racial equality. At the same time, Moses conceptualizes the goal of the endeavor almost exclusively as improved job opportunities. The program does not appear to directly use math instruction to help young people see full citizenship as the opportunity to use their math skills to promote social justice. As many articles in this book indicate, math can be used to analyze social inequalities within our society—such topics as the disparities between rich and poor school districts, the mathematics of sweatshop economies, and the quantitative injustices built into the wealth and income structure of our society. Such themes might represent a fruitful direction as the program’s curriculum evolves.

However, the absence of political math content hardly means the program is apolitical. The authors persuasively echo Ella Baker’s assertion that demanding something which is essential to your life and which you are systematically deprived of is an inherently radical act. Moses approvingly cites instances when young people agitated to make their schools dramatically improve math instruction.

For African Americans, the struggle for education has always been intertwined with the struggle for freedom. This intimate historical relationship is underscored when the authors quote Mississippi school-desegregation activist Mae Bertha Carter: “The way to control black people or anybody is to keep them dumb. Back in slave time they catch you reading and they would whip you. Education, that’s the goal. These [present day] school systems ain’t doing nothing but handicapping these children.”

In a society so afflicted with faulty historical memory, the Algebra Project demonstrates the necessity of learning from our past to fashion our future. In doing so, it puts history to its most honorable and practical use.

FOR MORE INFORMATION ON THE ALGEBRA PROJECT

Algebra Project Inc.
99 Bishop Richard Allen Drive
Cambridge, MA 02139
617-491-0200
www.algebra.org

Young People’s Project Inc.
99 Bishop Richard Allen Drive
Cambridge, MA 02139
617-354-8991
www yp.p.org
VI. Community College Teaching Strategies

- A Strengths Approach to Online Teaching Toolkit-Deficit Thinking
- Are you a Model Teacher?
- Chickering Gamsons Seven Principles of Good Practice in Undergraduate Education
- Getting Better as Teachers
- Teaching Portfolio
- The Syllabus as Promise
- The Three D’s
- Toolkit- Deficit Thinking
- Studying Excellence in Teaching: The Story so Far
A Strengths Approach to Online Teaching

Too often we approach new tasks, especially in the area of technology, by focusing on what we cannot do. Sally Kuhlenschmidt envisions how teaching an online class would proceed if we started from our particular strengths.

How can you use your strengths to improve the quality of teaching online?

“Education should instill in us an informed comprehension of our past, an engaged connection to our present, and a joyous sense of confidence in our future.” — Susan Saltwick (1997)

Not all recent revolutions have been technological. Since 2000, a subfield of psychology called “positive psychology” has categorized universal human strengths and identified ways of using this knowledge to enhance our lives, our performance, and our enjoyment of our work (Peterson & Seligman, 2004). These universal human qualities, called character strengths, are the building blocks of an effective, happy life—and can also influence your approach to online teaching.

The task of learning to teach online has typically been approached as one of learning specific technology, or of how to apply instructional design or pedagogical principles. These approaches can miss the individual qualities of relationship that keep students in the learning situation and build a community. Join an exploration of positive psychology and learn how shifting to thinking about strengths, instead of weaknesses, can help you succeed in this journey.
What is a character strength?

A character strength is a capacity to engage in behaviors, thoughts, or feelings that are constructive or health enhancing for oneself and others. Your particular strengths are likely to be reflected in your first response to any situation.

The research generated 24 strengths clustered into six categories. This is referred to the VIA Classification of character strengths and virtues (Peterson & Seligman, 2004). The VIA Classification is as follows:

**Without the Human Connection There is No Purpose to Any Teaching as the Goal of the Task is to Grow Other Persons.**

1. **Wisdom and Knowledge**—intellectual capacities, such as perspective, curiosity, love of learning, judgment and creativity, which help in acquiring and using knowledge.

2. **Courage**—emotional strengths, such as honesty, perseverance, zest, and bravery, which call upon capacities leading to goal accomplishment despite obstacles.

3. **Humanity**—strengths of relationship, such as social intelligence, kindness, and giving and receiving love.

4. **Justice**—capacities, such as fairness, leadership and teamwork, which lead to a healthy life in community.

**Tales from Real Life > Using What You Know About Strengths**

She plagiarized her discussion board post again, taking sentences directly from the book without citation. Previously, I would have docked her for plagiarism and felt satisfied I had done my job. Now, however, I reflected on what I knew of her identified strengths, including her stated desire to learn, to lead her in the best direction. Instead of expressing righteous indignation, I invited her to a one-on-one lesson about how to paraphrase more efficiently and effectively. She arrived mildly resentful about being called in and somewhat frustrated as she could not imagine another way to do the assignment. I knew I had to target her strong desire to learn and remained focused on the learning that would improve if she "owned" the content and put it in her words. After demonstrating paraphrasing and having her practice on some sections, she brightened and said, "I would rather understand the material and see how this method will make me do so." She had found a reason to not plagiarize that spoke to her strength of Love of Learning. The next day she wrote to thank me for my time.
5. TEMPERANCE—strengths, such as self-regulation, prudence, humility, and forgiveness, which help to maintain balance.

6. TRANSCENDENCE—capacities, such as humor, gratitude, hope, appreciation of beauty and excellence, and spirituality, that lead to meaning and connection with the larger world.

The VIA Institute on Character (http://www.viaclass.org/) provides a free online survey you can use to determine your strengths profile.

How might character strengths support you in the process of teaching online? As you read the suggested applications, seek your strengths and avoid thinking about qualities you are lacking. It’s the difference between moving toward a destination versus moving away from something unpleasant. The former journey is more likely to bring you to a worthwhile outcome.

Wisdom and Knowledge

In the context of online teaching, this cluster of strengths such as perspective and judgment provides tools for evaluating what is worthwhile. These skills let you take advantage of the best technology without wasting time on fads. Curiosity and love of learning permit you to enjoy the process of learning the new tools. And creativity lets you produce innovations in instruction online, tempered by judgment. Regardless of the technology, your wisdom is invaluable to students and can help you recognize the wisdom that students bring to any course. How can you encourage their strengths?

WHEN WE CONNECT ALL THAT WE DO TO A LARGER PURPOSE THEN WE CAN WORK WITH FOCUS AND ENERGY.

Courage

For the person who is anxious about technology or for those facing opposition to their technological innovations, the application of courage may seem obvious. These strengths let us be honest about the challenges we are facing so we can better marshal our capacities to work through them. There are specific behavioral skills, such as pausing and breaking the problem down into parts, which keep us going (perseverance) when we encounter problems. Zest for life can support our teaching online if we view the task as an adventure. We don’t always give ourselves credit for the bravery it takes to face the needs of students, to acknowledge the edges of our own knowledge, and to recognize the bravery of our students.

Humanity

Without the human connection there is no purpose to any teaching, as the goal of the task is to grow other persons. In the focus on technologies, we may risk losing our humanity and allow the technological environment to lead us. Social intelligence can enable the connection between instructor and students online. If we approach our syllabi, course documents, and emailed messages with an attitude of kindness, then the course can be transformative for students seeking growth. Practicing kindness does not rule out judgment and wisdom in establishing consequences for inappropriate behavior; however. If all of our actions are done with love—love of the discipline, of the growth potential in students, of those who help us in our teaching—then we have succeeded before we take any actions, before any technology is chosen or instruction designed.

Justice

Teaching is about building a community of learners, and strengths that encourage community building are fairness, leadership and teamwork. Teachers may have a different sense of what is fair than do students. Get feedback on your policies and procedures to see how they are being interpreted. Showing that you are concerned about developing and supporting course integrity by

// BEST PRACTICES > FIVE STEPS TO UNDERTAKE NOW

TAKE THE VIA SURVEY and consider how each of your strengths informs your teaching. How can you pull your strengths into your online course? How can you use them to tackle an instructional problem you are facing?

REVIEW YOUR ASSIGNMENTS, course documents and emails from the perspective of your character strengths. Modify the documents to reflect that quality.

REVIEW YOUR SYLLABUS, and rubrics to determine if they build strengths in students. If not, how can they be modified to focus on enhancing what individual students bring to the discipline? Do the assignments focus on what students should do (or on what they shouldn’t do)?

HAVE YOUR STUDENTS take the VIA Survey so they can focus on their own strengths, not only areas for improvement.

REFLECT ON THE COLLABORATIONS necessary for online courses. You will often work with support personnel, such as information technology and student support, to develop an online course. How can you use your strengths to build optimal relationships? What strengths do you see in them that you can encourage?
monitoring exams and helping them learn about plagiarism (rather than just catch them at it) are some ways to develop a community of fairness. In this way you evince leadership. Managing the course activities and clearly organizing the online activities is also part of effective leadership. Leaders seek to be the best for their community by continuous improvement of skills. As appropriate, you can also develop teamwork online, helping students learn to work together on projects using a variety of technology tools.

Temperance

For creative persons and those just learning to use technologies, it is easy to get seduced by all the options and spend too much time on a minor tool than is justified. The strength of self-regulation can help you monitor your time allocation and prudence can guide you to grow your online course over time, rather than attempting too much at first. Humility keeps you open to learning and to recognize when an activity isn’t working. Forgiveness is needed for yourself, to forgive yourself the trips down blind alleys that are an inevitable part of learning technology, to forgive those who may seem impatient with your learning and to forgive students who, in their anxiety, seem abrupt in emails.

Transcendence

What is transcendent about teaching online? A sense of humor is not possible without some degree of perspective on the situation. It demands you step back and recognize truth and thereby see new possibilities. Gratitude for the opportunity to use these tools, learn a new skill, and work with the students can help you cope with the frustrations that arise in any complex endeavor. Pausing to “smell the roses” and appreciate how amazing it is to connect with the world through your computer is a powerful moment of appreciation. And, while we know technology and students can be frustrating, we can hope for improvements as well as insights in our students. Our beliefs about our purpose in teaching motivate us and calls upon the strength of spirituality. When we connect all that we do to a larger purpose, then we can work with focus and energy.

Conclusion

This is but a quick survey of ways to see our strengths in our online teaching. Given that our work can lead us to focus on weaknesses, the intellectual and emotional courage it takes to shift thinking to strengths should not be underestimated. Practice is required as with learning anything new. But the journey is toward a healthful, constructive, life-affirming, balanced and comfortable outcome. Use your particular strengths to succeed in that journey.

REFERENCES & RESOURCES


Are You A Model Teacher?

Anyone who promises to show you a clear and easy path to teaching greatness in a college classroom is probably trying to sell you something. But being a model teacher is within your, and everyone else’s, grasp.

Have you seen any good movies lately? Chances are it starred Meryl Streep. The only thing more impressive than the number of awards she has been nominated for (355) and won (173) is the variety of roles she has played. She does obligatory dramas (The Post), but also sings (Mamma Mia), portrays real-life characters (The Iron Lady), gets laughs (The Devil Wears Prada), and does a pretty fantastic fox voice (The Fantastic Mr. Fox). No offense to Kate Hudson, but great actors do not play just one type of role. The best competently take on a variety of parts—model teachers are similarly well-rounded.

Everyone knows a pedagogical Melissa McCarthy who avoids some roles in teaching: great lecturers who can’t organize syllabi, masters of content who ignore skill development, winners of teaching awards who spurn assessment. The solution is to have a multidimensional definition of college-teaching competency and to seek guidance on developing those essential competencies. In our book, An Evidence-based Guide to College and University Teaching, we outline six key areas of competency that make up the model teaching criteria: training, instructional methods, course content, assessment, syllabus construction, and student evaluations.
Six Keys to Model Teaching

Good teaching isn’t one thing: it is many things. That is why you can’t ignore any of the six keys to model teaching when training or evaluating college teachers. How do you tell if someone is a competent teacher? You could check transcripts, but that might omit pedagogical training. Syllabi could be examined, but even perfectly designed courses fall flat when faculty can’t deliver. Assessment results? Sure, but what if students hate every second of the class? Traditional definitions of good teaching are incomplete when considered in isolation. Many college teachers are great in some aspects but have blind spots in others. Perhaps you know well-regarded teachers who are stymied by technology, who reject the value of active learning, or whose syllabi are anachronistic. To address the limitations of single-concept measures of good teaching, the model teaching criteria cover the full range of instructional responsibilities—preparation, design, implementation, evaluation, and revision—to help identify and eliminate pedagogical blind spots. Here are brief summaries of the keys areas of model teaching.

TALES FROM REAL LIFE > MODEL TEACHING

While good teaching has to be defined and promoted, “I love student evaluations” is not a sentence any of us have heard. Use the model criteria instead. Here’s one way: I (Regan) had coffee with the director of my university’s teaching center and overviewed the model teaching criteria. It was great. The director saw the benefit of a multidimensional model for faculty development and evaluation. I then had a chat with the college dean who was committed to changing how faculty teaching was evaluated. With the director’s backing, the dean pushed for a college-wide culture shift. I served as an ex-officio member of a faculty task force comprised of faculty from various disciplines. I overviewed the six criteria, shared the background research, and advocated a switch to the model criteria. By semester’s end, department chairs volunteered to pilot the criteria as a basis for merit review, faculty promotion, and professional activity reporting. The instructional technology gurus also created a Canvas course that is free to anyone who wishes to evaluate themselves on the model criteria and explore resources for further development, so now there also is a tool that can be shared beyond the university to promote “good teaching” anytime, anywhere.

Meet the Authors

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Training: Are You Avoiding Pedagogical Malpractice?

Bad news, you need brain surgery. Good news, your surgeon conducts and publishes cutting-edge neurological research. More bad news, your doctor has never actually cut someone’s head open. Does that sound ludicrous? It is exactly the situation for college teachers whose only training before walking into a classroom—and doing serious work on students’ brains—is content-area expertise.

Model teachers train not only in content but in pedagogy. They know how people learn and methods for facilitating learning. But training goes stale. So model teachers also stay current with changes in their discipline and in teaching and learning. Ongoing professional development through workshops or conferences is a must.

Instructional Methods: Do You Have Enough Tools?

Model teaching includes both big and small instructional skills. Small instructional skills include classroom practices and behaviors that traditionally have been used to evaluate faculty, such as organization, public speaking skills, rapport with students, use of technology, and so on.

Big instructional skills refer to what faculty might say when asked “What is your teaching method?” They include broad pedagogical approaches such as direct instruction, collaborative learning, team-based learning, and problem-based learning. The model teaching criteria do not stipulate one specific method. Model teachers have a toolbox of methods they can capably implement to fit the needs of students.

Meanwhile, model teachers create a balance. Their students acquire both knowledge and skills. In addition, they provide students with the values needed to implement their knowledge and skills for good, not evil. That is, model teachers ensure students can use and evaluate what they learn in the context of core values such as respect for ethics and diversity.

Assessment: Where’s the Evidence?

Although assessment gets a bad rap when it is dictated by administrators or accrediting agencies, most good teachers design learning experiences that follow an assessment cycle. It starts by setting learning objectives, and then selecting an evaluation method to reveal whether those objectives are met. Next is the really hard part: selecting and implementing instructional methods to move students toward the objectives. In other words, they have to teach. Evaluation of learning occurs simultaneously. Finally, teachers reflect on the outcomes of evaluations and plan how to do it better. Just about every teacher does something like this—they just call it teaching, not assessment.

Model teachers go through the assessment cycle systematically. In addition, they ensure the assessment process benefits students. Tests, papers, presentations, simulations—model teachers use many types of evaluation to assess whether students achieve learning goals. However, the evalu-

Course Content: To Cover or Not to Cover?

Teachers tend to fall into one of two camps: content-focused or skills-focused. Content-focused teachers believe students must understand the basic ideas of a discipline, and they design their course goals, instructional methods, and evaluations to emphasize expansion of students’ knowledge. “Why not just Google it?” skills-focused teachers reply. Rather than emphasizing the memorization of facts—the stuff students will likely forget or just look up later—skills-focused instructors focus on the intellectual tools needed to evaluate and communicate knowledge. Critical thinking and communication skills, they argue, are useful everywhere and forever.

Evidence?

There is extensive research on how people learn and what it means be a competent teacher.

CONSULT AND COLLABORATE WITH COLLEAGUES. Research shows that improvement of teaching is best done with help from friends. Consult with colleagues who are experts in a specific teaching competency, use their knowledge to set goals and find resources, and set a date to give them an update on your progress.

TAKE BABY STEPS. Do not address all criteria all at once. Instead, set goals to make one improvement in all six categories, or attack one of the categories with full force.

REPEAT THE PROCESS. Teaching development never ends. Keep assessing yourself, setting goals, and working toward a fresh pedagogy.
The same might be said of student evaluations. And, if you think diners have a valid perspective, then it’s hard to argue that students can’t provide meaningful feedback on their experiences.

Model teachers take student evaluations seriously and use them to improve their courses. They solicit student feedback not just at the end of the semester but throughout a course. Research shows that mid-semester reflection and goal setting, based on student feedback, can improve teaching. So, model teachers ask students about their experiences throughout the semester, consider their opinions, and make adjustments as necessary.

Syllabi: What Does It Say About You?

A well-known study in psychology asked students to judge a college teacher based on 10 seconds of silent classroom video, and it found that those snap judgments matched the end-of-semester evaluations by students who had spent a whole semester with the same professors. Yes, our students judge us quickly. So, what impression are you making when you hand out your syllabus on the first day? Students judge us based on syllabi, and they are right to do so because model teachers produce syllabi that are comprehensive learning tools.

WHAT IMPRESSION ARE YOU MAKING WHEN YOU HAND OUT YOUR SYLLABUS ON THE FIRST DAY?

Syllabi play multiple roles; they are both a factual record of a course and a learning aid for students. Even if you don’t like thinking of syllabi as a contract, that is how they are used during accreditation, program reviews, and transfer evaluations. So, they must be coherent and complete when outlining learning objectives, course content, assignments, and evaluations. Syllabi also guide students on how to learn in a new setting by explaining what they need to do and when to do it, how their learning will be evaluated, and the tools available to help them succeed.

Student Evaluations: What Do the Diners Think?

Should Yelp restaurant reviews be abandoned? After all, Yelp reviews are written by people untrained in culinary arts, sometimes biased against certain foods, and often swayed by presentation rather than flavor or quality of ingredients. But the same might be said of student evaluations. And, if you think diners have a valid perspective, then it’s hard to argue that students can’t provide meaningful feedback on their experiences.

REFERENCES AND RESOURCES


Seven Principles of Good Practice in Undergraduate Education


This research may seem dated if you look only at the publication date, but it's holding up just fine. Chickering and Gamson conducted a large study in the last century on how people learn, and subsequent research has done little more than echo their findings, which could be summarized in this statement: Students benefit from experiences that bring them into close relationship with mentors and co-learners.

1. Encourages Contact between Students and Faculty
Frequent student-faculty contact in and out of classes is the most important factor in student motivation and involvement. Faculty concern helps students get through rough times and keep on working. Knowing a few faculty members well enhances students' intellectual commitment and encourages them to think about their own values and future plans.

2. Develops Reciprocity and Cooperation among Students
Learning is enhanced when it is more like a team effort that a solo race. Good learning, like good work, is collaborative and social, not competitive and isolated. Working with others often increases involvement in learning. Sharing one's own ideas and responding to others' reactions sharpens thinking and deepens understanding.

3. Encourages Active Learning
Learning is not a spectator sport. Students do not learn much just by sitting in classes listening to teachers, memorizing pre-packaged assignments, and spitting out answers. They must talk about what they are learning, write about it, relate it to past experiences and apply it to their daily lives. They must make what they learn part of themselves.

4. Gives Prompt Feedback
Knowing what you know and don't know focuses learning. Students need appropriate feedback on performance to benefit from courses. When getting started, students need help in assessing existing knowledge and competence. In classes, students need frequent opportunities to perform and
receive suggestions for improvement. At various points during college, and at the end, students need chances to reflect on what they have learned, what they still need to know, and how to assess themselves.

5. Emphasizes Time on Task
Time plus energy equals learning. There is no substitute for time on task. Learning to use one’s time well is critical for students and professionals alike. Students need help in learning effective time management. Allocating realistic amounts of time means effective learning for students and effective teaching for faculty. How an institution defines time expectations for students, faculty, administrators, and other professional staff can establish the basis of high performance for all.

6. Communicates High Expectations
Expect more and you will get more. High expectations are important for everyone — for the poorly prepared, for those unwilling to exert themselves, and for the bright and well-motivated. Expecting students to perform well becomes a self-fulfilling prophecy when teachers and institutions hold high expectations for themselves and make extra efforts.

7. Respects Diverse Talents and Ways of Learning
There are many roads to learning. People bring different talents and styles of learning to college. Brilliant students in the seminar room may be all thumbs in the lab or art studio. Students rich in hands-on experience may not do so well with theory. Students need the opportunity to show their talents and learn in ways that work for them. Then they can be pushed to learn in new ways that do not come so easily.

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Getting Better as Teachers

How can we get better in our teaching?" It is a question that perpetually challenges us. One powerful option is to learn from the outstanding teachers around us: What do they do that makes them so effective? Can we learn from them to become better teachers?

Improving Our Teaching: Learning from the Best

In 2004, Ken Bain published the influential book, What the Best College Teachers Do, which offered an in-depth study of more than 60 outstanding teachers from quite varied institutions. His book contains numerous wonderful lessons, but the central theme was that these teachers created “natural critical learning environments.” They challenged students with authentic problems and questions and then supported their efforts to grapple with related ideas, rethink their assumptions, and re-examine their mental models of reality.

In the belief that it is possible to look at exceptionally good teachers and learn more than one valuable lesson, I offer this additional analysis.

The four circled items represent the fundamental tasks of teaching. The way we do those tasks is influenced by the our own views of knowledge, learning, teaching, ourselves as teachers, and our students as learners. In my essay, I identify some lessons from Bain’s book on three of these factors: perspectives, course design, and interactions with students.
“What the Best College Teachers Do”: An Additional Analysis

Ken Bain’s description of the best college teachers (2004) is a rich resource of information from which we can all learn. As a long-time faculty developer with my own perspective on college teaching, I offer this additional analysis of what accounts for the unusual impact of these teachers on the learning of their students. This analysis focuses on the perspectives they brought to their work, their course design decisions, and the special way they interacted with their students.

THEIR CONVERSATIONS REVEALED A MINDSET THAT TRUSTED STUDENTS TO BE GOOD STUDENTS.

ATTITUDES AND PERSPECTIVES

Apart from their actions in relation to specific courses, these teachers had a special set of attitudes or perspectives about teaching and learning that was foundational to the way they taught.

Intense Desire to Continue Learning. Not only did these teachers do the usual work of keeping abreast of changes in their discipline, they spent substantial amounts of time continuously learning new ideas about teaching and the nature of human learning.

Positive Attitudes Towards Students. In their own thinking and in their communication with others, they never engaged in the all-too-common practice of blaming

TALES FROM REAL LIFE > LEARNING ABOUT TEACHING AND LEARNING

Like most of us who teach in higher education, Kristin Scott, an assistant professor of Marketing, had no preparation for teaching. At her first university, she was given some old syllabi a week before classes and told: “Just try to stay one week ahead of the students.” Result? “I had no understanding of what to do or of how students learn. I dreaded going to class. I thought the students hated me.”

Fortunately her second university, Minnesota State—Mankato, had a Teaching Certificate Program to help junior faculty learn about teaching. Result? “It was a complete paradigm shift for me. I learned some really fundamental concepts, like ‘active learning and metacognition; I learned how to engage students, and the importance of identifying what I want students to learn.”

An increasing proportion of college teachers are discovering there are some “break-through” ideas about teaching and learning “out there.” Fink maintains an annotated bibliography of books with major new ideas on college teaching published in the last 20 years; it is available online at: www.finkconsulting.info/majornewideas.doc

As Professor Scott said, “Participating in this Teaching Certificate Program made my job more enjoyable. I still have a lot to learn, but my courses already have a lot more focus to them; my students are more engaged with each other and with me. That makes my courses much more exciting—both for my students and for me.”
students. They never made comments like "Today's students just don't [fill in your favorite problem] like they did in my days as a student," or "You just have to force students today to work hard." Rather, their conversations revealed a mindset that trusted students to be good students.

**Used Teacher Evaluations to Improve.** They did not just glance at their end-of-course evaluations and ask: "How'd I do this time?" They examined the evaluations closely to see what students liked and disliked, then they used this information to get even better in their teaching. When students were not learning well, they examined the course, before automatically blaming the students.

**Viewed Their Teaching as Part of a Larger Context.** They did not view their teaching as their private domain—and no one else’s business. Rather, they saw their own teaching as an integral part of what their institution or their discipline was trying to do. That is, they saw themselves as part of a collective effort to provide students with a high-quality educational experience. This meant they tried to contribute in some way to the goals of that larger effort.

**DECISIONS ABOUT COURSE DESIGN**

Before the course even began, these teachers undertook a number of specific actions and decisions, which I would describe as course design decisions.

**Identified Big Questions and Stories.** Many of them identified big questions or big stories that gave meaning to the whole course. One calculus teacher drew an irregular shape and then asked students: "How would you calculate the area under that curve?" A sociology professor posed the question: "How does society influence individual human behavior, and is that influence greater than the personal and biological forces within each person?"

**Fully Used the First Day of the Course.** They did not dismiss class early, and tell students to "go buy your textbooks." They used the first day to get the course started in a powerful way. Many used this to get to know their students better, both individually and collectively. Others used it to pose their big question and start the process of engaging students.

**Formulated Good Learning Goals.** These teachers clearly had moved into learning-centered teaching. They recognized the need to build their course around a set of high-quality learning goals, rather than just marching students through a set of topics about the subject. Many of these goals focused on “thinking” as well as “knowing.” But many also wanted learning that, in terms of Fink’s Taxonomy of Significant Learning (2003), went well beyond the categories of cognitive learning. One medical-school professor wanted her students to learn: how to handle their own emotions, how to treat a person in a hospital bed as a human being, and how to care both for healing and for helping people and their families.

**Used Good Learning Activities.** These teachers had moved well beyond primary reliance on the traditional staples of lectures, homework, and whole-class discussions. They had students engaging in authentic tasks, small group work, finding sources of information, answering those big questions themselves, and reflecting on their own learning.

**Responded to Student Characteristics.** By paying attention to several characteristics of their students over the years and currently, they were able to make adjustments in their courses to deal appropriately with: students’ prior knowledge of the subject, their dominant learning patterns, their expectations of the course, etc.

**Used Good Assessment Activities.** Their assessment activities were used to do more than grade students; they were used to enhance learning. They accomplished this by (a) periodically having students assess their own learning, (b) providing frequent feedback on student work, and (c) using well-developed rubrics to evaluate.

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**BEST PRACTICES > STRATEGIES FOR GETTING BETTER AS A TEACHER**

Here are three pieces of advice to get anyone on a growth curve in terms of their competencies and capabilities for helping other people learn.

First, spend time learning about teaching. This might mean participating in on-campus or national workshops, reading books, gathering feedback from students, and if your university has a faculty development program, using their consultation services.

How much time should one spend? Most sizeable organizations spend 5% of a person’s time on professional development. For faculty members, that would mean spending 8 hours a month or 8 days a year.

Second, apply what you learn. It is not enough to learn new ideas; you have to use them and make some kind of change in your teaching.

Third, assess your teaching carefully. When you try something new [which should be every time you teach], ask your students if they learned something valuable. Which activities helped them learn well and which did not?

If you can regularly learn and apply new ideas to your teaching, and also assess the impact of these changes, you will see yourself getting better and better as a teacher — every year, every year!
complex projects.  

Created a High Level of Course Integration. One level of integration was achieved by making sure their learning and assessment activities fit their learning goals. In addition, they frequently found a way to connect out-of-class learning with in-class learning. This way, the course offered a sequence of activities that built on each other, frequently leading to a culminating activity or project.

THEIR INTERACTIONS WITH STUDENTS

Once the course was underway, these teachers communicated and interacted with students in a way that motivated and empowered students to effective learning. How did they do this?

They Showed Students They Cared. They didn't just “say” they cared; they did care—about many things. They were concerned about students as human beings; they deeply wanted students to learn; the whole teaching-learning process excited them; and they truly believed their subject was the most important and exciting in the world. These passions were made visible to students, not hidden or kept secret.

They Knew How to Motivate Students. Bain mentioned three specific actions by teachers that motivated students to work hard on learning: (a) they gave praise in a special way, e.g., using “task” praise rather than “person” praise, (b) they listened carefully to students, and (c) they figured out what motivated different students, and then responded in special ways to each student.

They Had Dynamic Communication Skills. Part of this involved using a sense of drama and rhythm in their dialogue. They also used the language of “promises” (“This is what you will be able to do as a result of this course...”) rather than “demands” (“This is what you must do in this course...”). In addition, they:

• Invited students into a community of learners about the subject at hand, both past and present.
• Repeatedly expressed their belief that each and every student in the course really could learn this material.
• Celebrated the achievements of students.
• Used the “warm” language of good story telling.

They Were Trustworthy. They were sensitive to how they handled the power-trust issue inherent in any hierarchical relationship. They did not use the classroom to demonstrate their power or brilliance, but instead to invest in students, displaying a trust that students were ready to learn. When possible, they gave students power to make decisions about their own learning. And finally, they were fair, i.e., they equally applied the same policies for all.

REFERENCES AND RESOURCES

Here are seven books with ideas that can help anyone make their teaching more effective.


Related website: www.designlearning.org


Related website: www.teambasedlearning.org


THE TEACHING PORTFOLIO

Matthew Kaplan

At institutions across the country, faculty are creating opportunities to exchange ideas on teaching and, in the process, becoming more reflective about their teaching. In part, this is a response to national discussions about the false dichotomy that is often drawn between teaching and research. To move beyond this debate, there have been calls for expanding the idea of scholarship to include certain teaching products, as well as research products (Boyer, 1990). Three strategies for taking a scholarly approach to reviews of teaching are ones that are common to discussions of research as well (Shulman, 1993). First, scholarship is firmly grounded in the disciplines, and a scholarly approach to the review of teaching would focus on the teaching of a specific discipline. Second, just as research becomes scholarship when it is shared, faculty would need to begin making teaching community property. And finally, scholarship often involves making judgments about faculty work, which, for teaching, would mean that faculty would become more involved in reviewing each others’ accomplishments in teaching and learning.

The teaching portfolio is one of the tools faculty can use to document their scholarly work in teaching. This Occasional Paper contains a discussion of the nature and purpose of the teaching portfolio (and its offshoot, the course portfolio) and suggestions for how individuals and units can use portfolios most effectively.

What Is a Teaching Portfolio?

A record of accomplishments in teaching

Based on the model of the portfolio kept by artists and architects, the teaching portfolio contains evidence of a faculty member’s achievements in teaching: “What is a teaching portfolio? It includes documents and materials which collectively suggest the scope and quality of a professor’s teaching performance. . . . The portfolio is not an exhaustive compilation of all of the documents and materials that bear on teaching performance. Instead, it presents selected information on teaching activities and solid evidence of their effectiveness” (Seldin, 1997, p. 2).

Documentation in context

The portfolio should be more than a simple collection of documents.

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It also should contain reflective statements on the material included and on the faculty member’s approach to teaching and student learning. The reflective portions of the portfolio help set the documents in context for the reader; the materials provide evidence to back up the assertions made in the reflective statement.

What Might Go into a Portfolio?

When considering the contents of a portfolio, faculty must distinguish clearly between being representative and being exhaustive. Attempts to create an exhaustive compendium of an instructor’s work in teaching run the risk of becoming exhausting, both for the person collecting the materials and for any readers who might choose (or need) to respond to the portfolio. Furthermore, the attempt to be completely comprehensive can turn the project of developing a portfolio into a paper chase. Such a large collection of documents makes it difficult to maintain the reflective aspect of the portfolio, which is one of its chief purposes and advantages.

The portfolio should, instead, be representative of the various aspects of a faculty member’s teaching. This means looking beyond the most obvious part of teaching — what goes on in the classroom. While the activities and interactions with students in class are important, they do not fully reflect faculty work with teaching. Other items might include planning courses, assessing student learning, advising students (in office hours or in larger projects such as theses and dissertations), curriculum development and assessment, supervising student research, working to improve one’s teaching, and publishing articles on teaching and learning.

One way to categorize items that a faculty member might include is to divide them into three categories based on the source of the item: materials from oneself (e.g., reflective statements, descriptions of course responsibilities, syllabi, assignments), materials from others (e.g., statements from colleagues who have observed or reviewed teaching materials, student ratings, letters from students or alumni, honors or recognition); and products of good teaching (student essays or creative work, a record of students who have succeeded in the field, evidence of supervision of theses). Some of these sources may be more appropriate for certain aspects of teaching than for others. See Appendix A for a more comprehensive list.

Purposes of Portfolios

Self-reflection and improvement

Assembling a portfolio involves reflection. Most portfolios include a reflective statement that can cover topics such as the instructor’s approach to teaching and learning, his or her assumptions about the roles of students and teachers, and goals the instructor expects students to achieve (Chism, 1997-1998). In addition, faculty need to collect documents that support their reflective statement, a process that also involves reflection (selecting some items over others, reviewing past work, etc.). As a result, the portfolio is well-suited to helping faculty examine their goals for teaching and student learning, and compare those goals to the reality of their praxis.

The comparison between the ideal and the real is the first step in the process of improving teaching. Instructors can gain a sense of how effective their teaching is and how they could improve from a variety of sources: student ratings of instruction, midsemester feedback, self-perception, discussions with colleagues, etc. By constructing a portfolio, faculty will look systematically at the various sources of data about their teaching; therefore, they can make more informed decisions about teaching strengths on which they wish to build and problems in their teaching they wish to address. The reflection and improvement process can be further enhanced when faculty work together (in pairs or small groups) as they develop their portfolios. Colleagues can offer support and advice, exchange new ideas and solutions to problems, and broaden each other’s views of the teaching and learning process. Moreover, such exchanges help create a community of scholarship around teaching that is based on a concrete, discipline-specific context.

Decision making

Accomplishments in teaching are becoming a more important factor in administrative decisions such as tenure, promotion, reappointment, and merit increases. The teaching portfolio enables faculty and departments to insure that an instructor’s work in teaching is judged using multiple forms of evaluation, seen by multiple eyes. This is important, since no one perspective can accurately represent faculty teaching. For instance, students can evaluate certain aspects of teaching that focus on classroom interactions, such as organization, rapport, and ability to stimulate discussion. On the other hand, faculty colleagues are in a position to judge items that are beyond the expertise of students, such as how up-to-date material is, how well a course is integrated into the curriculum, etc.

Self-evaluation and reflection are also important, especially for providing a context for understanding data about teaching effectiveness. The portfolio as a whole gives individual faculty a sense of control over the evaluation process. In addition, departments that encourage faculty to
submit portfolios will need to have discussions about what, if any, documents will be required and what will be left up to the individual faculty; how long the document can (or should) be; and how much reflection is required. Such discussions provide a useful venue for creating a shared sense of what constitutes good teaching in a department.

Graduate student portfolios

Graduate students who apply for faculty positions commonly use portfolios because many colleges and universities now require job applicants to provide some proof of teaching experience. Graduate students are turning to the portfolio as a way of organizing their work in this area. Currently, the requirements vary widely among schools. Some require just a list of courses taught or a reflective statement on teaching, and some ask for specific items (such as proposed syllabi for certain types of courses, student ratings, demonstrations of commitment to undergraduate research, etc.). The earlier in their teaching careers that graduate students begin to think about their portfolios, the more chance they will have to retrieve the documents they find most representative of their accomplishments. Aside from its value for the job market, the portfolio often represents the first time graduate students have had the opportunity to reflect on their teaching, which they often find both challenging and rewarding.

An Alternative to the Teaching Portfolio: Course Portfolios

A variation on the teaching portfolio is a course portfolio. As the name implies, these documents focus on a specific course, with a special emphasis on student learning. A course portfolio, therefore, is analogous to a scholarly project. It includes sections on goals (intended student learning outcomes), methods (teaching approaches used to achieve outcomes), and results (evidence of student learning) for a specific course.

Moreover, it is the relationship or congruence among these elements that makes for effectiveness. We expect a research project to shed light on the questions and issues that shape it; we expect the methods used in carrying out the project to be congruent with the outcomes sought. And the same can be said of teaching.

By encompassing and connecting all three elements – planning, implementation, and results – the course portfolio has the distinctive advantage of representing the intellectual integrity of teaching. (Cerbin, 1993, p. 51)

Course portfolios offer advantages for the person developing them as well as for the curriculum. For the faculty member developing the portfolio, the advantages are similar to those of assembling a teaching portfolio (e.g., self-reflection and a chance to compare intentions with outcomes), but with more in-depth insight into the impact of teaching on students. For departments, course portfolios can provide continuity and reveal gaps in the curriculum. For example, a course portfolio becomes a record of the purpose and results of a course that can be passed on to the next person in charge of that course or to the faculty member who teaches the next course in a sequence. By examining a set of course portfolios, a curriculum committee can gain an overview of what students are learning and what is missing, which could help with the process of curriculum revision.

How are Portfolios Evaluated?

Just as there is no one model for a teaching portfolio, there is no one method for evaluation. Again, this is a strength of the portfolio, since it means that individual units will need to develop criteria for evaluation and make them relevant to faculty in that unit. The process of deciding on criteria can also help to clarify what faculty in that unit value with respect to teaching. For one example of an evaluation scheme, see Appendix B.

As units develop criteria for evaluating portfolios, they should first consider the ways they plan to use the portfolio. Will portfolios be limited to faculty being considered for tenure or promotion or for instructors nominated for teaching awards, or will all faculty prepare a course portfolio in preparation for a department-wide curriculum review? These purposes differ and so should the requirements for the portfolios involved.

Once the purpose is clear, faculty will probably want to create guidelines for assembling portfolios. While it is important to maintain the flexibility of the portfolio, it is also necessary to insure some degree of consistency in order to make evaluation fairer and more reliable.
Faculty might establish consensus on required items, such as a page limit for the overall size of the portfolio, the focus (a single course, an overview of teaching, or a combination), opportunities for reflection, or a template (so that faculty do not need to worry about format and can concentrate instead on the content). Ideally, such guidelines will be established with input from potential reviewers in the unit as well as those faculty who will be under review.

**Advantages of Portfolios**

In the AAHE monograph *The Teaching Portfolio: Capturing the Scholarship of Teaching*, the authors describe four main benefits of the teaching portfolio (Edgerton, Hutchings, & Quinlan, 1991, pp. 4-6). Course portfolios have similar attributes.

1. **Capturing the complexity of teaching**
   - Portfolios contain evidence and reflection in the context of what is being taught to whom under what conditions.
   - The portfolio can present a view of a teacher’s development over time.
   - Entries in the portfolio can be annotated to explain their significance for the faculty member’s teaching.

2. **Placing responsibility for evaluation in the hands of faculty**
   - Faculty are actively involved in presenting their own teaching accomplishments so that evaluation is not something done “to” them.
   - Portfolios extend evaluation beyond student ratings and encourage peer review and collaboration.
   - The need to evaluate portfolios can lead to discussions on standards for effective teaching.

3. **Encouraging improvement and reflection**
   - Assembling a portfolio involves reflection.
   - Because they involve reflection, portfolios allow faculty to compare their ideals with their actions, a first step in efforts to improve.
   - A faculty member’s portfolio reveals both products (evidence) and processes (reflection) of teaching to colleagues who read it.

4. **Fostering a culture of teaching**
   - Portfolios can provide a rich and contextualized source of evidence about teaching achievements that can be used for a variety of purposes, including evaluation, improvement, summary of faculty careers, and defining “good teaching” in a department.

**How Can Faculty Get Started?**

Faculty can begin at any time to collect materials for their portfolios. At first, this process might entail simply saving relevant materials related to teaching so that they are readily accessible for review. At some point the faculty member will need to sort through the materials and decide which ones best represent his or her teaching accomplishments. Often this process is enhanced when faculty collaborate with each other as they build their portfolios.

CRLT offers campus-wide workshops on teaching and course portfolios, and we can bring a customized workshop to departments. The focus of the workshop is to help faculty develop a clear idea of what a portfolio is and what items it might include and to give faculty an opportunity to begin a reflective statement on teaching. When workshops are conducted in a department, faculty can begin to answer the question, “What is good teaching in our department?” CRLT also provides one-on-one consultations for individual faculty who are working on their portfolios and for units as they develop a systematic approach to portfolios.

**References**


Possible items for inclusion

Faculty members should recognize which of the items which might be included in a teaching dossier would most effectively give a favorable impression of teaching competence and which might better be used for self-evaluation and improvement. The dossier should be compiled to make the best possible case for teaching effectiveness.

THE PRODUCTS OF GOOD TEACHING
1. Students’ scores on teacher-made or standardized tests, possibly before and after a course has been taken as evidence of learning.
2. Student laboratory workbooks and other kinds of workbooks or logs.
3. Student essays, creative work, and project or field-work reports.
4. Publications by students on course-related work.
5. A record of students who select and succeed in advanced courses of study in the field.
6. A record of students who elect another course with the same professor.
7. Evidence of effective supervision of Honors, Master’s or Ph.D. theses.
8. Setting up or running a successful internship program.
10. Documentary evidence of help given by the professor to students in securing employment.
11. Evidence of help given to colleagues on teaching improvement.

MATERIAL FROM ONESELF
Descriptive material on current and recent teaching responsibilities and practices.
12. List of course titles and numbers, unit values or credits, enrollments with brief elaboration.
13. List of course materials prepared for students.
14. Information on professor’s availability to students.
15. Report on identification of student difficulties and encouragement of student participation in courses or programs.
16. Description of how films, computers or other nonprint materials were used in teaching.
17. Steps taken to emphasize the interrelatedness and relevance of different kinds of learning.

Description of steps taken to evaluate and improve one’s teaching.
18. Maintaining a record of the changes resulting from self-evaluation.
19. Reading journals on improving teaching and attempting to implement acquired ideas.
20. Reviewing new teaching materials for possible application.
21. Exchanging course materials with a colleague from another institution.
22. Conducting research on one’s own teaching or course.
23. Becoming involved in an association or society concerned with the improvement of teaching and learning.

25. Using general support services such as the Education Resources Information Centre (ERIC) in improving one’s teaching.
26. Participating in seminars, workshops and professional meetings intended to improve teaching.
27. Participating in course or curriculum development.
28. Pursuing a line of research that contributes directly to teaching.
29. Preparing a textbook or other instructional materials.
30. Editing or contributing to a professional journal on teaching one’s subject.

INFORMATION FROM OTHERS

Students:
31. Student course and teaching evaluation data which suggest improvements or produce an overall rating of effectiveness or satisfaction.
32. Written comments from a student committee to evaluate courses and provide feedback.
33. Unstructured (and possibly unsolicited) written evaluations by students, including written comments on exams and letters received after a course has been completed.
34. Documented reports of satisfaction with out-of-class contacts.
35. Interview data collected from students after completion of a course.
36. Honors received from students, such as being elected “teacher of the year”.

Colleagues:
37. Statements from colleagues who have observed teaching either as members of a teaching team or as independent observers of a particular course, or who teach other sections of the same course.
38. Written comments from those who teach courses for which a particular course is a prerequisite.
39. Evaluation of contributions to course development and improvement.
40. Statements from colleagues from other institutions on such matters as how well students have been prepared for graduate studies.
41. Honors or recognition such as a distinguished teacher award or election to a committee on teaching.
42. Requests for advice or acknowledgement of advice received by a committee on teaching or similar body.

Other sources:
43. Statements about teaching achievements from administrators at one’s own institution or from other institutions.
44. Alumni ratings or other graduate feedback.
45. Comments from parents of students.
46. Reports from employers of students (e.g., in a work-study or “cooperative” program).
47. Invitations to teach for outside agencies.
48. Invitations to contribute to the teaching literature.
49. Other kinds of invitations based on one’s reputation as a teacher (for example, a media interview on a successful teaching innovation).

Appendix A

<table>
<thead>
<tr>
<th>QUESTION</th>
<th>DOSSIER MATERIALS</th>
<th>SUGGESTED FOCUS IN EXAMINING DOSSIER MATERIALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What is the quality of materials used in teaching?</td>
<td>Course outline, Syllabus, Reading list, Text used, Study guide, Description of non-print materials, Handouts, Problem sets, Assignments</td>
<td>Are these materials current? Do they represent the best work in the field? Are they adequate and appropriate to course goals? Do they represent superficial or thorough coverage of course content?</td>
</tr>
<tr>
<td>Peer Reviewer's Rating:</td>
<td>Low</td>
<td>Very High</td>
</tr>
<tr>
<td>Comments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. What kind of intellectual tasks were set by the teacher for the students (or did the teacher succeed in getting students to set for themselves). And how did the students perform?</td>
<td>Copies of graded examinations, Examples of graded research papers, Examples of teacher's feedback to students on written work, Grade distribution, Descriptions of student performances, e.g., class presentation, etc., Examples of completed assignments</td>
<td>What was the level of intellectual performance achieved by the students? What kind of work was given an A, B, C? Did the students learn what the department curriculum expected for this course? How adequately do the tests or assignments represent the kinds of student performance specified in the course objectives?</td>
</tr>
<tr>
<td>Peer Reviewer's Rating:</td>
<td>Low</td>
<td>Very High</td>
</tr>
<tr>
<td>Comments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. How knowledgeable is this faculty member in subjects taught?</td>
<td>Evidence in teaching materials, Record of attendance at regional or national meetings, Record of colloquia or lectures given</td>
<td>Has the instructor kept in thoughtful contact with developments in his or her field? Is there evidence of acquaintance with the ideas and findings of other scholars? (This question addresses the scholarship necessary to good teaching. It is not concerned with scholarly research publication.)</td>
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<td>4. Has this faculty member assumed responsibilities related to the department's or University's teaching mission?</td>
<td>Record of service on department curriculum committee, honors program, advising board of teaching support service, special committees (e.g., to examine grading policies, admission standards, etc.), Description of activities in supervising graduate students learning to teach, Evidence of design of new courses.</td>
<td>Has he or she become a departmental or college citizen in regard to teaching responsibilities? Does this faculty member recognize problems that hinder good teaching and does he or she take a responsible part in trying to solve them? Is the involvement of the faculty member appropriate to his or her academic level? (e.g., assistant professors may sometimes become over-involved to the detriment of their scholarly and teaching activities.)</td>
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<td>5. To what extent is this faculty member trying to achieve excellence in teaching?</td>
<td>Factual statement of what activities the faculty member has engaged in to improve his or her teaching. Examples of questionnaires used for formative purposes. Examples of changes made on the basis of feedback.</td>
<td>Has he or she sought feedback about teaching quality, explored alternative teaching methods, made changes to increase student learning? Has he or she sought aid in trying new teaching ideas? Has he or she developed special teaching materials or participated in cooperative efforts aimed at upgrading teaching quality?</td>
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GF LAZOVIC 1979  
UNIVERSITY OF PITTSBURGH  
Peer Reviewer's Signature  
Date  

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The Syllabus as Promise: Can a shift in the syllabus produce a better learning environment?

What kind of Syllabus do Highly Effective Teachers Develop?

We studied teachers who have enormous success in helping and encouraging their students to achieve remarkable learning and found that they usually produce a certain kind of syllabus.

If the syllabus didn’t exist and you wanted to invent one based on what we think we know about human motivation and learning, what kind of syllabus would you produce?

Answer: The same kind that highly successful teachers already use.

How so?

Human beings tend to be naturally curious animals who love to learn, but that love of learning can actually decrease with extrinsic motivators that appear to manipulate that learning.

In short, we all like to control our own learning. The problem, of course, is that professors usually control the questions that are raised, and rightly so. But that leaves students with little sense of influence over their own education.

The typical syllabus accentuates this problem, emphasizing requirements and assignments that the professor has devised.

Not surprisingly, working under such a syllabus even many good students become strategic learners, learning to follow orders and do what is necessary to make the grade but avoiding deeper learning.

We can begin to reconstruct the environment in which our students learn with a syllabus that makes promises rather than demands and invites students to a deliciously provocative intellectual or artistic feast.

Here’s How:

In addition to the standard information about the professor and TA’s (name, contact information) the syllabus as promises would contain three elements.

The Promises: What kind of learning does your course promise your students?

1) What this Course Promises You - A Story to Set Up The Promise

Example: In the 1970’s and 80’s, Former Senator William Proxmire awarded what he called the “Golden Fleece” Award, a sarcastic recognition of what he thought were projects that wasted public funds. Some of the recipients of this dubious honor were scientists whose studies appeared to the senator to be examinations of ridiculously small questions that had no value. Was Senator Proxmire justified in his criticism? What do research scientists do? Why do they sometimes spend years studying extremely small questions? What kind of research takes place at this university? Is it worthwhile? Some projects funded with public dollars may be ridiculous, while other strange-sounding endeavors may actually have enormous value. How do you tell the difference?

The Promises: In this course, you will have an opportunity to explore some of the exciting research being done at this university on biological clocks. In the process, you will develop considerable insight into the nature of science and the research lives of scientists. You may or may not become a research scientist, but you may some day have to decide about funding for a research endeavor. This course will help you make those decisions wisely. It will also help you understand more about how your own internal clock and the clocks that exist in every animal work. Why do college students often like to stay up late while their parents are “early to bed and early to rise” people? Why do people suffer from jet lag? How do we find out about how Biological Clocks work? How do scientists draw conclusions? How certain are those conclusions?

2) Ways to Fulfill Those Promises (formerly known as requirements and assignments)

Example: How Will You Fulfill These Promises? To realize these promises you must take responsibility for your own learning and participate as an active learner. The best way to learn what scientists do is to spend some time with one. We have arranged for each student to spend at least eight hours with a research scientist. That person will tutor you in the ways of science, explaining their project to you and helping you understand the process of science. At the end of your experience in the tutoring program, you will write a five page paper about your experience. This paper will help you get more out of the experience and it will help us evaluate your learning, providing you with more accurate feedback. During class lectures, we will provide you with more explicit information on how to write this paper. During class, we will also provide you with lectures on key concepts and information that will also help you learn.

Reading, Writing, and Thinking in the Course. To take charge of your own education, you must be willing to read. We will provide you with some reading material that you will read, analyze, and think about between each class. We will distribute this material to you electronically [Details about how they will get it]. You will also pursue a topic of special interest to you and write a paper about that topic. The writing of the paper will help you refine your thinking and
understanding. If you do not learn to communicate in words, you cannot formulate fully developed thoughts and will, instead, live by the vague impressions and emotions that often substitute for ideas. By the end of the course, you should be able to (brief list or description of the major learning objectives stated in terms of what the students will be able to do intellectually, physically, or emotionally. It could also include some habits of the heart or mind that students are likely to develop).

3) Ways for the student and teacher to know whether the student is achieving the promises (formerly known as “Grading Policy.”). The beginning of a conversation about how the teacher AND student will best come to understand the nature and progress of the student’s learning.

Example One: To evaluate your progress in reaching these goals (and to provide you with feedback on your learning) we will look at the following items: (list).

Example Two: The final grade will assess each student’s ability to draw and defend historical conclusions and to think historically. To evaluate your progress in reaching these goals (and to provide you with feedback on your learning), we will look at the following items: (list).

Example Three: We want to help you think about and understand your own learning and thinking so that you can better take charge of that learning. In the course of the semester, we will help develop that understanding of your learning and thinking. At the end of the semester, you should be able to assess your own work and make an argument about where you are in your learning (remember, an argument is not just conclusions but evidence offered in support of conclusions). Here are some guidelines for the self-assessment that will help you make that argument. You should attach the following to the front of your argument:

Purpose: I understand that the purpose of this activity is to assess my own performance across the term. If successful, this report will make it possible for those who read it to grasp explicitly what I have and have not learned this term in the way of thinking abilities. It will itself display critical thinking about my thinking. I will begin by stating the grade which I believe that I have the evidence to support. I will build a case for my grade using the criteria below and excerpts from my own work as support. (Note: Ironically, a well-reasoned case for you to get a low grade may well justify you getting a higher grade, while a poorly-reasoned and weakly-supported case for getting a high grade will certainly guarantee a lower grade. The most impressive response will be an accurate assessment of your strengths and weaknesses leading to the well-substantiated conclusion that you deserve the grade you do in fact deserve.)

Overall Course Goals and Objectives: The goal of the course is to develop thinking abilities and the knowledge and understanding that result from their use in the study of questions and issues.

My areas of strength: I am best at the thinking abilities listed below. In each case, I will attach evidence from my work along with accompanying analysis and commentary.

1) 2)
3)
4)

My areas of weakness: I am weakest at the thinking abilities listed below. In each case, I will attach evidence from my work along with accompanying analysis and commentary.
1)
2)
3)
4)

If the course grade is to be based on how well I develop thinking abilities and the knowledge and understanding that result from their use in the study of questions and issues, my grade should be a ____________.

Attached is a summary of the reasoning on which I base my judgment.


Taken with permission from Montclair State University

www.montclair.edu/academy/resources/promisingsyllabus.html
The Three D’s

The most effective teachers vary their styles depending on subject matter, course timing, and other factors. In doing so, they encourage and inspire students to do their best at all times.

How to vary your teaching style and why

This paper discusses three primary teaching styles that should be in the tool chest of every college instructor, along with practical suggestions about when and how to use them.

The basic concepts are derived from the “Situational Leadership Theory Model,” developed by Ken Blanchard and Paul Hersey, with whom I studied at Ohio University. Since then, as a college instructor, coach, consultant, corporate trainer, and facilitator, I have successfully applied the concepts described below with thousands of students in a variety of settings.

Think of these teaching styles as the three Ds: Directing, Discussing, and Delegating.

The directing style promotes learning through listening and following directions. With this style, the teacher tells the students what to do, how to do it, and when it needs to be done.

The discussing style promotes learning through interaction. In this style, practiced by Socrates, the teacher encourages critical thinking and lively discussion by asking challenging questions of students. The teacher is a facilitator guiding the discussion to a logical conclusion.

The delegating style promotes learning through empowerment. With this style, the teacher assigns tasks that students work on independently, either individually or in groups.
Using an appropriate mix of each teaching style

I typically structure my classes to include some amount of each teaching style. However, during the first part of a semester I primarily use the directing style, followed by more discussing style in the middle. Toward the end, I lean more heavily on the delegating style. Using an appropriate mix helps students learn, grow, and become more independent. Too much reliance on one style causes students to lose interest and become dependent on the teacher. But no matter which style is used, teachers should be alert for “teachable moments.”

Below is a brief description of each teaching style, with suggestions on using them for best results. For each I have organized this material according to four key components: communication, coaching, decision making, and recognition.

The Directing Style

COMMUNICATION in the directing style is predominantly one-way: teacher to student. The teacher imparts information to the students via lectures, assigned readings, audio/visual presentations, demonstrations, role-playing, and other means. Students learn primarily by listening, taking notes, doing role-plays, etc. The teacher may ask, “Do you understand the instructions?” but generally does not solicit other feedback.

COACHING occurs as the teacher advises

When I was a high school freshman, I made the varsity hockey team. Unfortunately, compared to other teams in the league, we floundered. At the time, in all of my teenage wisdom, I concluded that the difference between us and the league’s most excellent teams came down to coaching, and I began studying what the top coaches did to bring out the best in their teams and players. Later, at Ohio University, I took a terrific course taught by a terrific teacher: Managing Organizational Behavior by Paul Hersey. His knowledge and passion for the subject further ignited my interest in management and teaching styles. After graduating no NHL teams clamored for my services. I worked a few years in sales but that wasn’t my passion. At age 27, I accepted a teaching and coaching position (varsity hockey) at American International College. This experience gave me the opportunity to apply some of the concepts and theories I had learned in college—and on the ice so many years earlier. Over the past thirty years, I have observed, studied, and interviewed hundreds of the top business managers and leaders to try to identify how they bring out the best in their people. The principles I have learned about management and leadership styles are also applicable to the needs and approaches of teachers in the classroom.
students on what they need to change. In addition, the teacher may demonstrate desired behaviors to the students, such as rewriting a passage to improve clarity.

**DECISION MAKING** occurs when the teacher defines the problem, evaluates options, and makes a decision. By understanding the teacher’s process, students learn how to frame problems, evaluate alternatives, and make effective decisions.

**RECOGNITION** happens spontaneously when the teacher praises students in class. It also can be accomplished on a more formal basis through test grades or teacher-student conference feedback.

**Suggestions for using the directing style**

- **Start with the big picture.** Provide the context before launching into specifics.
- **Be clear and concise.** Students need to know exactly what they must do to succeed and how their work will be evaluated. Understandable goals, specific deadlines, and concise directions increase student motivation and eliminate confusion. Sloppily written, poorly organized instructional materials, on the other hand, will confuse and discourage students.
- **Provide sufficient detail.** Breakdowns occur when important details are omitted or instructions are ambiguous.
- **Don’t sugar coat the message.** There are times when teachers need to be very direct to get through to students.

**The Discussing Style**

Communication in the discussing style is two-way (between teacher and student) or multi-way (among students, or students and teacher). The teacher asks challenging questions and listens carefully to responses. Follow-up questions help uncover underlying assumptions, reasoning, and feelings. Students learn to have opinions and be able to back them up with facts and data.

Coaching occurs when the teacher asks questions that require students to evaluate themselves. Good questions to ask are “How do you think you did? What could you have done better? What steps can you take to improve?” The goal is to encourage students to examine what they did, why they did it, and what they can do to improve.

Decision making occurs as the teacher and students work together to define problems, identify and evaluate alternative solutions, and make decisions. Students learn as they respond to the teacher’s questions, offer their own ideas, and consider the pros and cons of each option.

Students should be praised for thoughtful observations, creative ideas, building on the ideas of others, and helping the group reach a logical conclusion.

**Suggestions for using the discussing style**

- **Prepare questions in advance.** Great discussions don’t just happen. Ask one question at a time. Be open and interested in learning what each student thinks.
- **Don’t allow one or two students to dominate.** Solicit everyone’s ideas. Gently draw out students who seem reticent. I sometimes start my classes by saying, “I want to give each of you one minute to discuss your views on this topic. Let’s go around the room.” Get closure by reviewing the key point or points you want to make.
- **Have Students Create Questions.** I like to have my students read a case and formulate three questions to ask their classmates. Then we discuss their answers in class.
- **Utilize “clickers.”** Some teachers ask them to use clickers to answer multiple-choice questions during class. After their responses are summarized onscreen, students discuss why they gave certain answers.

**The Delegating Style**

Communication occurs as the teacher assigns tasks for students to tackle independently or in small groups. Students listen and ask questions until they fully understand the task.

Coaching is accomplished primarily through self-coaching. Students gain the most when they are able to critique their own performance. For example, to my stu-

**BEST PRACTICES > IMPLEMENTING THE THREE Ds**

Directing style of teaching: While constantly looking for opportunities to communicate more clearly and succinctly, I chisel away like a sculptor at every sentence, word, and slide that doesn’t add value. I often provide written instructions, so students can reread them over and again. To increase motivation, I explain why I’m assigning a particular task and the potential benefits of it.

Discussing style of teaching: Before class, I devote considerable time to creating questions that will stimulate discussion about key issues. In class, I give students ample time to think and respond, and I resist the temptation to immediately answer my own questions.

Delegating style of teaching: I try to delegate tasks that are a bit outside students’ comfort zone. I want them to stretch and struggle a bit. It’s important to let students know that you have confidence in their ability to be successful. For long-term projects, I establish specific milestones when they must report on their progress.
ents I might say: “I want you to think about your performance on this assignment. Identify three things you did well and one area needing improvement. I’d like to meet tomorrow to hear what you come up with.”

Decision making happens as students establish goals, implement plans, and work through issues on their own. The teacher gives them the power and responsibility to solve their own problems, which may include dealing with team members who are slacking off.

Recognition most often includes praise, good grades, and other rewards given to students who work well independently, meet deadlines, and produce good work.

**Suggestions for using the delegating style**

- **Assign research projects.** In my management course I require students to interview a manager of a local business to get answers to questions like the following:
  - What are the main performance measures your company uses to evaluate each employee’s performance?

- **Assign team projects.** Have each team select a team leader, define roles and responsibilities, and hold each other accountable for completing the project on time. In my management class, I have teams of students analyze the management and leadership behaviors on movies like *Remember the Titans.*

- **Assign a capstone project.** The final project in my course involves student teams doing a PowerPoint presentation that summarizes the seven principles they will follow to be an effective leader.

There is no one best teaching style. Effective teachers use a variety of styles, and they know how and when to choose the most appropriate one for the specific situation.

**REFERENCES AND RESOURCES**


The Community College Faculty Institute (CCFI) is a collaborative effort between community college faculty across Central and Southern California and UCLA researchers from the Graduate School of Education. In the summer of 2017, in an effort to learn about the experiences of community college faculty and to explore teaching and learning from a Funds of Knowledge\(^1\) and Community Cultural Wealth\(^2\) perspective, UCLA hosted its first CCFI with 19 faculty participants. Throughout their three-day attendance in the CCFI, faculty were introduced to theories which guided reflective discussions about their teaching practices, their roles as educators, and their perspectives about community college students. At the conclusion of the institute, faculty were given the option to participate in a study focusing on classroom practices. Faculty who agreed to be part of the study gave consent for researchers to collect and examine several forms of data: surveys, one-on-one interviews, classroom observations, study group observations, student interviews, and social media interactions. Unique to this study was the particular focus on the faculty and the classroom as the primary units of analysis and the intrinsic examination of pedagogical practices and the relationship to student outcomes.

This toolkit presents preliminary findings from data collected over the course of a year of working with the faculty participants. It is important to note, that the project was presented to the faculty as a collaborative effort with the research team, where the faculty’s expert insight helped guide the research process. This toolkit draws from the data gathered to (1) identify some of the ways in which we, as researchers, observed faculty build community in their classrooms, (2) highlight how faculty used FOK approach in their teaching practices and (3) present ways that the students in these classrooms reacted to their faculty’s teaching practices.

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**CCFI Research and Instructional Team**

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<th>Co-Instructors:</th>
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<tr>
<td>Dr. Juana Mora, Rio Hondo Community College</td>
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<td>Dr. Luis Giraldo, Santa Barbara Community College</td>
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<td>Dr. Cecilia Rios-Aguilar, UCLA</td>
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<td>Natacha Cesar-Davis</td>
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<td>Sid Jacobo</td>
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<td>Cindy Raquel Escobedo</td>
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<td>Imelda Zapata</td>
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\(^1\) Funds of Knowledge are collections of knowledge based on cultural practices part of families’ cultural practices, work experiences, community norms, and/or daily lived experiences (González, Neff, Amanti, & Moll, 2006).

\(^2\) The various forms of capital and knowledges Students of Color bring with them from their homes and communities, into the classroom. Several forms of cultural wealth evident in Communities of Color include: aspirational, navigational, social, linguistic, familial and resistant capital (Yosso, 2005).
Building Trust and Community in the Community College Classroom

Many students talked about the importance of community building and the difficulty of meeting this end in a community college setting. Many talked about feeling like they have missed out on the “college experience” while at their institutions, and how spending more time on campus engaging in social activities is something they wish they had a greater opportunity to do. However, we contend that community can be created in the classroom. In fact, many students affirm that faculty members played a pivotal role in creating and sustaining community in the microcosm of the classroom. For example, students talked about being able to open up and share of themselves when professors were “humble”. They often referred to their professor’s ability to “relate a lot to us, she brings examples of when she was a student and sometimes she brings up family, how she understands like, how family might affect us...she reminds us she also goes through problems, we all do, sometimes you have professors that never bring up anything about life and make it seem like, ‘well if I can do it, you can do it,’ but she’s very relatable.” This reaffirms the significance and importance in being honest, vulnerable, and humble with students as a strategy for building rapport.

As an example, one student shared how his perception about his professor changed over time as he got to know “the man under the suit,”. The student shared that getting to know his professor as a professional, but also as a person, led him to feel comfortable enough to share his own life story. The student stated, “he always wears a suit to class, he’s always dressed very professionally and then once you get to know the man under the suit... he’s very humanizing for himself and that’s what makes him the most effective... he has a very good way of bringing real life into the classroom and making it relatable. I’m excited to go to that class because I know I’m going to have fun learning about whatever were talking about... Every time we hear the name ‘Jay’ it’s a signal to us to be ok this is a personal story about his life, why wouldn’t we want to give something back to also make it relatable, kind of like ‘look it happened to a professor but it also happens to the 31-year-old white kid in class.” Evidently, students are most attuned to and invested in their classes when faculty members actively work to humanize themselves. In humanizing themselves, professors create an environment whereby students are invited and encouraged to bring in personal experiences into the classroom.

The last example highlights the significance of building trust and community as a way for creating inviting academic environments. To contextualize, the professor in this next observation example was in the classroom before class began. The student reminds us that access to faculty during times convenient for students is simple, yet immensely important for helping students create meaningful connections with the professors and colleagues.

The Professor walks over to the front of the classroom, greets the students that are already present.

Student B- [raises her hand]
Prof.: [jokingly says] why are you raising your hand? What’s up?
Student B: A counselor told me that I needed another course to graduate
Prof: What course did they say?
Student B- They just said I needed to take Comm 231
Prof.: Oh that’s my other class
Student B: Should I take that one instead of this one?
Prof. X: What major are you?
Student B: I am communications major
Prof. X: Take all of them, take as many as you can
Student B: okay cus I am trying to graduate early
Student A: oh I am also having an issue with my financial aid
Student C: I hate going to the financial aid office, they are slow and bitter
Prof X: I have to talk the Dean about something else, I will inquire about your question
Student A: Yeah because my scholarship was supposed to get here a while ago, they said that it did, but financial aid does not have it.
Prof X: Yes I will talk to the Dean about it.

Evidently, the students in this example trusted the professors’ advice and relied on the professor for support which extended beyond the context of the class. However, we argue that this interaction took place especially because students formed a trusting bond with their professor prior to the conversation taking place. We further argue that students need to feel as though their professors support them with class matters, but also matters which extend outside the context of the classroom. In order for students to feel empowered to subsequently succeed in their classes and beyond, they need access to a space where their voices are heard and their concerns taken seriously by professors.

Funds of Knowledge in Practice
Through classroom observations, the research team was able to document diverse ways in which faculty either elicited their students FOK, or incorporated the known FOK in to their classroom practices.
One example comes from a observing a Spanish class engaged in-class activity titled “Como Soy.” This activity invited students to come up with adjectives that described themselves and then to share them in small groups. Dra. Perez who facilitated this activity told students to work individually, then work in pairs or groups. While students were working, the professor walked around and checked in with students to see if they needed any assistance. Although it was supposed to be individual work, students talked with one another. The professor did not direct the students to stop talking during the solo portion of the activity. Instead, she focused on answering questions that students had. At the end of the activity, the professor called some students by name to describe the adjectives that they selected to describe themselves. Every student that she called on responded promptly signaling that they were accustomed doing activities like this one. As students share out, other students seemed attentive of what their colleagues were saying. We note that the professor affirmed each student as they shared their adjectives. She said things like “very good,” “good job with that.” Since this activity required that students conjugate the verb “yo soy” students needed to think of adjectives that described different aspects of themselves, which in turn allows students to draw on their background, knowledge, and experiences. In this example, the professor was able to learn about the students FOK and FOI3 (Funds of identity) while also creating a community of learners. Evident

Funds of Knowledge for Community College

Systems of Support
While few students talked about not having traditional mentors helping them navigate the educational pipeline, many pointed to family as their source of support and as those who they talked to about their educational choices, even though for many their parents had not attended college themselves. As one student notes, “family in general has been a big support system, if I’m stress and feel like I can’t do this, they are the ones I talk to.”

3 Funds of Identity are those bodies of knowledge, skills, and resources of tools that include tangible and mobile artifacts, such as pictures their dimension of sense (Esteban-Guitart, & Moll, 2014).
throughout this example is a theme of collaborative and reciprocal learning: the students learned the subject and about each other, and the professor learned about her students.

A second example of how we observed professors using or accessing students FOK comes from an activity where students were to complete the following statement during a communications class: *My name is _____ and if there is one thing I could change about my education it_______.* Each student responded to this question following the communication techniques being taught in the class, but also giving of themselves to the professor and their classmates.

**Student D:** [Student stands up] Hello Prof. X and class, my name is D. If there is something I could change about my education, it would be how is preparing me for my professional life.

**Prof. X:** Alright now, thank you.

**Student E:** [Student stands up] Hello Prof. X and class, my name is E. If there is something I could change about my education is stop being lazy and be more dedicated.

**Student F:** [Student stands up] Hello Prof. X and class, my name is F. If there is something I could change about my education is that I would devote more time for it.

**Student G:** [Student stands up] Hello Prof. X and class, my name is G. If there is something I could change about my education is the cost.

**Student H:** [Student stands up] Hello Prof. X and class, my name is H. If there is something I could change about my education is that it will be done.

**Student O:** [Student stands up] Hello Prof. X and class, my name is O. If there is something I could change about my education is that 65 years ago when I started elementary school I would have taken it more seriously.

**Student A:** [Student stands up] Hello Prof. X and class, my name is A. If there is something I could change about my education is the financial aid office.

**Students:** Yeahhh, that is so true [some are clapping and cheering]

**Prof. X:** thank you for your participation

**Students:** what about you? You should do this exercise too

**Prof. X:** okay, fair. Hello, I am prof. X. If there is something I could change about my education, I would have to agree with our guest, I would change how I went about my undergraduate education as well.

This example, like the previous one, highlights how accessing students FOK and FOI does not always have to be through an elaborate assignment, a starting point can be as simple as asking one question.

**Engaging Students’ FOK Through Group Activities**

As with many CCFI participants, Sophia valued teamwork, dialogue, and collaboration. First and foremost, her syllabus provided examples and ways students would/should collaborate. When it comes to active participation, Sophia stated: “I do a lot of role playing. They love games and challenges, and that’s what I do normally when I incorporate. Sometimes I do with the group exercises to ... I let them return to being a child. I think I might have told you before, when I had Montessori school of ideas. I use some of the techniques. Team building challenges and things like that, that they really like. And over the years, I know which ones are more desirable, you know, get the participation quicker. So, that’s what I use.”

An example of role-playing as a pedagogical practice is evident in Sophia’s classroom. The focus of the class topic was “making lasting impressions” for customer satisfaction. In this particular activity, students got into teams and had to develop a business and a one-minute elevator pitch of how they would sell their product. In a matter of seven minutes, a group of four students, who were all of older age, had collectively decided that their grocery store would be “Freshness you can taste, values you can trust”. Through such activities, we note that students were more
engaged with one another to the extent they were competitive and excited about their learning.

As highlighted in the literature on pedagogy, students must feel welcomed in the classroom if any learning will happen. Often times, students are paralyzed and leave the classroom because of the fear they will be assess and deemed incapable of learning (Cox, 2009). In order to dispel such internalized struggles, Sophia uses real-life examples for students to explore and hopefully carry on beyond the class. It is indeed important for students to connect within the classroom - peers connected discussing former employee responsibilities, music, and other non-academic work experience.

**Student Perceptions of Faculties’ Teaching Approach**

Students were recruited for interviews from the classrooms that the research team observed. Students that chose to be part of the study were interviewed and asked questions both of their educational trajectories in general, but also about their experiences in the participating faculty’s class. What follows are students’ responses when asked about: their first impressions of their professors, what they thought the faculty’s teaching style was like and what they felt was effective/ineffective about their professors. We posit these as examples of what students value as significant.

Mari shared that she “felt like I was meeting like my uncle, like it was familial, it was nice, I thought, oh ok I can actually do this, it’s ok. He makes it fun but also educational, he knows how to get it across, but at the same time he’s like ‘Alright I understand this is an 8am class, let’s try to get this going together’...I feel like he’s very personable even though I haven’t talked to him much. Like I haven’t gone to office hours or anything, but I feel like if I did he’d be like ‘I understand, I get you’ and then he’d help me with anything if I needed. His teaching style is very right to the point, like he gets the point across and everything, but if you do have questions he explains it a little bit more and he does go around to make sure that you understand the concepts sometimes and if you’re too scared to ask a question, he does linger a little bit like ‘do you understand? Yes, no maybe? The way he presents himself in a very personable way is very helpful, for me at least...but also the teaching style that he has, like models that might help.”

Stella shared that she felt her professor seemed “very humble, which is nice because you feel like, you’re not scared to ask questions or anything like that...she’s very comforting to be in class with... [her teaching style] it’s pretty straightforward, it’s really easy to follow, she give a lot of examples, I like the way she teaches, its visual, there’s a few group assignments so she tries to do different methods. Effective, I would say is her personality, like a lot of people say she’s a nice professor, she’s easy to engage with and the fact that we’re not afraid to ask questions or anything like that. I guess it’s the way she explains the material, it’s not so textbook it’s not jargon or anything like that, she could honestly just teach us straight from the book but... she does it in her own way its relatable.”

Danny shared that she was apprehensive about her professor at first because she took a class with her about race and this is a topic she is uncomfortable talking about, but stated that this perception changed and she “knew I was going to like her because she reminded me a lot about myself, I like things a certain way and I like to help people where ever they need to be helped, wherever needs help she’s willing to help the students and I loved that about her... She opened my eyes about race topics, like she made us read this 8 page paper the first week, I was like ‘girl you are crazy,’ it talks about what different races have done in America, like what they have contributed to. And as a whole class that, it was during the Trump election, and everyone in that class, doesn’t help that we’re all Mexican-American or of Latino decent in that class, so everyone focused more towards what the Mexicans brought and what the African-American culture brought and we also talked
about the Jewish Community and the Irish Community and the Asian Community and she made us breakdown everything and that’s what made me like ok, it opened my eyes, I can’t be so sensitive about just my culture...”.

Evidently, students are attuned to the ways faculty interact with them from a pedagogical point of view and from a curricular perspective. Students appreciate when faculty recognize, value, and activate their cultural knowledges and their ways of being and learning. All of these combined, lead to the humanization of faculty and students.
Uncovering Funds of Knowledge in the Classroom:
Three Activity Suggestions

It is important that we go beyond the data and use content that students are able to relate to and apply in their everyday lives. The following are three examples that faculty can try to use in your classrooms to gain access to your students FOK, FOI and CCW.

1. Community Cultural Wealth Walk
As Yosso (2005) reminds us, Students of Color bring with them a whole host of skills, knowledges, and assets from their communities, into the classroom. One strategy for recognizing these assets (and subsequently activating them throughout the quarter/semester) is by affirming students’ lived experiences through a race-conscious and asset-based activity: The Community Cultural Wealth (CCW) Walk. The CCW Walk, developed by colleagues at CalState Fullerton, requires that facilitators (in this case instructors) ask a series of affirming prompts that students will respond to. If students agree to the prompts, they can raise their hand (or if space allows, students can line up shoulder to shoulder and take steps forward). Students are encouraged to take note of how their classmates are responding to the prompts by looking at other’s responses, so they all recognize each other’s’ assets and wealths as a collective. Some examples of prompts include:

A) Take a step forward if you grew up with more than one language or dialect spoken at home.
B) Take a step forward if you have cooked dinner for a family of at least 4 people for less than $5.
C) Take a step forward if you grew up having to negotiate more than one culture.

This activity was created specifically to honor the cultural wealth developed in and emergent from Communities of Color, so it is especially useful for engaging discussions with Students of Color. For more information, visit this online site. https://profteacher.com/2016/11/06/promoting-a-culture-of-assets-instead-of-deficits/

2. Student Survey
One way to elicit students’ funds of knowledge is to administer a survey. The surveys don’t have to be extensive, it can be as simple as asking just a few questions, such as:

1. Tell me something you think I should know about you to help you
be as successful in this class as you want to be?

2. Tell me what your academic goals are? Or How I might help you figure out what your goals could be?

3. What is your greatest responsibility outside of school? OR Who are the most important people in your life and why?

By gaining access to knowledge about student’s backgrounds, like what obstacles they face, what goal they have for themselves and who/what their support systems are, professors can begin to create student centered spaces where students feel valued and validated. This signals to the students that their faculty values who they are and is interested in them as people. Some ways in which survey data can be used is by incorporating it into class assignments such as:

- **Writing journal responses**
- **Interviewing** family or community members
- **Incorporating student interest into class assignments** (ex. If many students are interested in transferring, an assignment can be to do research on the transfer process, what is required, what schools or programs they would be interested in and so on)
- **Small group discussions**- sharing some of their survey responses with each other to create trust and community
- **Allowing flexibilities with assignment topics** – again, by knowing what students’ interests, backgrounds and goals, assignments don’t need to be so structured as long as they meet the assignment goals.

3. **Draw FOI**

Asking students to draw a **self-portrait and/or significant circle** this technique can be used to learn more about students’ perceptions of themselves and how they identify and relate with their surroundings. This can be an activity done in-class and one that can be shared with their peers. Faculty can start by sharing their own self-portrait and/or significant circle, this activity and help create trust and community within the classroom.
*See the Esteban-Guitart article below.

**Additional Resources**
To learn more about the concepts and theories presented in this tool kit, we recommend the following:

**Online Tool**
Community Cultural Wealth Walk:

**Books**

<table>
<thead>
<tr>
<th>Title</th>
<th>Author(s)</th>
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<tbody>
<tr>
<td>Whose culture has capital? A critical race theory discussion of community cultural wealth</td>
<td>Yosso, T. J. (2005)</td>
</tr>
</tbody>
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**Peer Reviewed Articles**


VII. Additional Resources

- Applying for a Teaching Position.
- Constructing a Social Justice Tour
- Frye Oppression
- Ten Things Everyone Should Know About Race
- Who wants to hire a more diverse faculty
- Whose Culture has Capital
- How to hold a Better Class Discussion
About North Orange County Community College District (NOCCCD)

Be a part of the NOCCCD team! We are always seeking highly-qualified people to join our organization. If you have a passion for excellence and a commitment to preparing students for the highly competitive, global workplace, we invite you to apply for a position with the District.

The NOCCCD includes two Colleges, Fullerton College and Cypress College, and the North Orange Continuing Education School which is located in the District building in Anaheim with satellite locations throughout Orange County. NOCCCD enjoys easy access to Los Angeles, San Diego, Palm Springs and the region’s celebrated beaches, mountains and deserts.

Ideal candidates will share the District's commitment to diversity, equity, and inclusion. The District truly embodies an inclusive learning culture. The student body is incredibly diverse, with over 46% Latinx, 20% Asian/Pacific Islander, 18% Caucasian, .6% American Indian/Alaskan Native, and 3% African American students. The District believes in a multicultural learning experience where faculty and staff from diverse backgrounds can contribute to the development of our students.

The NOCCCD offers a generous benefits package to eligible employees. Information on the benefits package can be located at https://nocccd.edu/employee-benefits.

Applying for a Position at NOCCCD

The Office of Human Resources welcomes your interest in job opportunities at the District. Our goal is to assist applicants with the application process.

To view current job opportunities visit the NOCCCD Job Opportunities page at https://nocccd.peopleadmin.com. Applicants can view the available openings, resource information, and apply for a position online. The District no longer accepts applications or attachments by email, fax, or in person. Computer stations are available in the lobby of the District offices located on the 9th floor of the Anaheim Campus (1830 W. Romneya Drive, Anaheim 92801) for those without access to a personal computer.

Please visit our website, https://nocccd.edu/human-resources for resource information and FAQs. If you have any additional questions please contact the Office of Human Resources at hrapply@nocccd.edu or (714) 808-4810.

Management and full-time faculty applicants travelling more than 150 miles to interview with NOCCCD are eligible for travel reimbursements. Please read the District’s Administrative Procedure 7120-10, Applicant Reimbursement at, http://www.nocccd.edu/files/7120-
Tips for Faculty Positions

1. Be familiar with the minimum qualifications for Instructor positions. Details on minimum qualifications can be located at https://nocccd.edu/minimum-qualifications.

2. Take the diversity qualifications seriously. Applicants will be evaluated on their ability to be effective with diverse students and in diverse working environments. All faculty/instructor positions will include both a diversity and equity minimum and preferred qualification. Screening/hiring committee members will be more impressed with the candidate that has a history of engaging in diversity and equity than the candidate who has no history but promises to do so in the future. Specifically, for faculty positions we are looking for applicants who practice culturally responsive teaching and who incorporate diversity, equity, inclusion, and multiculturalism into their course content. Applicants who do not respond to the diversity question on the application, or whose response clearly indicates they do not value diversity, equity, and inclusion, or whose response indicates they do not meet the minimum requirement of sensitivity to and understanding of diverse student and employee populations will be screened out for not meeting minimum qualifications.

3. Your letter of introduction and your CV should also reflect your experience with, commitment to, and/or understanding of diversity, equity, and inclusion.

4. Your letter of introduction should not be a one paragraph letter, nor should it be more than three pages long. Do not repeat in your letter of introduction the information that is already contained in your CV or application. Tell us what makes you special or describe specific incidents that tell us who you are or what you are passionate about.

5. Submit all documents requested. Any application packet that is missing requested documents will be rejected for being incomplete.

6. If selected for an interview, be sure to have researched the District and the specific College you are applying to. Review the District and College websites; be familiar with the
demographics of the students and initiatives, priorities, programs, and goals of the District and College. Screening and hiring committees are impressed when applicants have done their research and are familiar with the District and College.

7. Attend NOCCCD’s Hire Me workshops for tips on the application and interview process. Check the District’s Human Resources webpage for dates and locations. Hire Me workshops are usually held between January and March.

8. Interviews are only 50 minutes long and the screening/hiring committee can only ask preapproved questions. Screening/hiring committees can only consider information provided in the application packet and in the interview, any outside or previous knowledge a committee member may have about an applicant cannot be shared with other committee members or considered by the committee. So be sure to share with the screening/hiring committee any information you have that demonstrates why you are the best applicant for the position.
Constructing a Social Justice Tour: Pedagogy, Race, and Student Learning through Geography

Natchee Barnd

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Constructing a Social Justice Tour: Pedagogy, Race, and Student Learning through Geography

Natchee Barnd

ABSTRACT
This article describes a high-impact learning project that combines geography, history, and ethnic studies. It describes the construction of the course, student outcomes, and the final and publicly presented collaborative project: the Social Justice Tour of Corvallis. Based on work in a small largely white town, this project presents a reproducible model for student learning and actively engaging with questions of race and geography.

Key Words: social justice, pedagogy, race, cultural geography, diversity

It was almost like presenting part of ourselves to everyone. I think we all became close to the stories we told. Sharing them with others was amazing. It was a way to honor these unheard voices that were part of the Corvallis history. (Student reflection)

INTRODUCTION
Given renewed and often high-profile public dialogue over racism, both in the United States and abroad, university faculty should be especially determined to responsibly address these issues in their curriculum and pedagogy. In this article, I offer both a concrete template for a learning project that tackles these issues and some theoretical framing for understanding how such work offers more than simply an additive approach to including marginalized peoples and embracing diversity. Geography and geographic methods can offer a unique means by which to engage students in meaningful learning and practice while actively addressing questions about the politics of the archive, the practice of knowledge production, the contested nature of history and space, and the power dynamics of spatiality and spatial practices. In this light, I offer one model for creatively connecting issues of history, race, and geography that is especially useful in small, mostly white towns with minimal archival materials. It offers a guide for how a unique student-led and collective research project can utilize a hands-on artistic approach to learning and practicing cultural geography. It can help build community across and between racialized, indigenous, and otherwise marginalized peoples in such towns, and perhaps more importantly, contribute to transforming student engagement with and understanding of their larger community.

In this article I highlight this productive student-learning project combining ethnic studies, geography, and historic walking tours. We use a history-based tour focused on racialized and marginalized communities to reshape how we engage local geography. My overall goal is to share an underutilized means to integrate geography content with critical pedagogies of race and social identity in ways that can lead to meaningful, community-engaged scholarship and practices. The class experience deployed many of the Association of American Colleges and Universities’ (AACU) recommendations for incorporating high-impact learning practices, as well as for actively supporting students of color (Kuh 2008). According to current teaching-and-learning research and as outlined by the AACU report, effectively utilizing and assessing high-impact practices produces students with “higher grades, higher persistence rates, intellectual gains, greater civic engagement, increased tolerance for diversity, and increased interaction with faculty and peers” (Association of American Colleges and Universities 2011, 16).

The tour project consciously utilizes high-impact learning activities, including: experiential learning, student research, diversity learning, and civic engagement. In so doing, this project embodies the principle that “the purpose of college education is not to transfer knowledge but to design environments and experiences that help students craft knowledge and solve problems for themselves” (Skop 2009, 230). It also follows the growing literature indicating that effectively reaching experiential learning outcomes requires course designs and teaching strategies that are student-centered and student-empowering (Boyer Commission on Educating Undergraduates in the Research University 1998). Assessment of
these practices in relation to “underserved populations” still remains limited given unequal access, but the data strongly indicates greater “salutary effects” that quickly “compensate” for academic achievement, engagement, and persistence gaps between students of color and white students (Kuh 2008, 19). Positive outcomes for students of color was especially vital for my course given that out of four total graduate students involved two were Latino and two were Native American. I also suggest that projects like this one can both provide diversity learning and serve as an effective retention tool.

In addition to the student-learning objectives, the project purposes were (1) to bring together and connect hidden local histories and (2) to craft a place-specific experience that could be shared with the larger campus and town. My findings are based on the process of constructing and delivering this course, and several subsequently delivered tours. The first tour served as the main course product and was created for an invited group of fifty campus-affiliated and student guests. Four additional tours were later solicited by: a faculty/staff professional development seminar enrolled with a dozen attendees (in two consecutive years), training for campus residential advisors, and cultural center student staff.

While I facilitated the class and tour with graduate students, I am certain most elements of the project can be accomplished with undergraduates. In fact, I initially designed the course as a combination undergraduate-graduate course. It is worth noting here that my course operated on a quarter system schedule, meaning we completed the core project in less than ten weeks. Despite an admittedly small sample size, the overwhelmingly positive outcomes for both students and our tour guests strongly indicates this model worked well and suggests it can be effectively replicated in a number of contexts.

**OVERVIEW OF THE CLASS AND PROJECT**

In spring of 2014, four master’s students and I delivered the social justice tour of Corvallis. This bus-and-walking tour presented narratives of the local community, highlighting pre-1960s stories from marginalized individuals and communities based on race, class, gender, and sexuality. The tour lasted just under two hours. We walked one segment, and boarded our rented yellow school bus to travel the less proximal segments. To augment our tour and make its impact more sustainable we also developed a mobile app triggered by location. This app allowed the guests a chance to see images and read a sample of the stories they heard delivered at each location. The app remains publicly available as an ongoing resource.¹

The class was aimed at practicing techniques for collecting, analyzing, and incorporating ethnic community histories and highlighting contested productions of geography, especially in relation to race and racism. As a methods course, I required students to gather primary sources from archives, including both the university’s special collections holdings and those of the local Benton County Historical Society. During prior academic terms, I sent a graduate research assistant to collect leads on potential stories. Using her findings, I preselected a number of likely stories and supplied some of those names, dates, and events to my class. We ultimately used some of those leads, but also discovered other options during our research. The students were required to locate archival materials, review and analyze them, and determine what aspects proved compelling for crafting a tour-ready narrative. They also sought out visual materials that would add value and a longstanding evidence of the outcomes, most evidently in the form of high-quality printed guides/script booklets, which were also given out to our guests as parting gifts (Fig. 1). The booklets have continued to serve as valuable tools for outreach and partnership to those unable to attend the tour offerings.

The relationship between research and creativity proved important for this project. It was also key to a more participatory and meaningful learning experience. During our tour introductions I intentionally and forcefully drew attention to that fuzzy line between fact and fiction, and explained our embrace of the ambiguity in order to tell stories that could not be told without creative license. The student stories defied an uncooperative and incomplete archive, and also centered on generating themes that opened larger history and geography concerns. In this way, the stories represent speaking out the “narrative possibilities” and not just the facts of the archives (Crew and Sims 1991). Figure 2 shows one of the students engaged in this experiential learning, publicly delivering his research findings and creative narration.

**Experiential Learning and Social Justice**

This exercise draws on a number of theoretical insights and principles from social justice education in geography and critical geography, as well as methods embedded in place-based education and learning community practices (Skop 2009; Israel 2012). I use the term *experiential learning* to fold in all of these elements, which, when combined, present a hands-on and socially meaningful framework for teaching and learning. While this fusion seems a simple concept and is commonly used, Coe and Smyth (2010, 127) note a lack of recent “attention paid to the pedagogic justifications for designing field courses in specific ways or for adopting particular teaching, learning and assessment strategies.” In short, geographers do not regularly enough share concrete examples or fully discuss these effective techniques and approaches. Coe and Smyth (2010, 127) find this of particular concern given the “significant investments of time and financial resources” directed toward “field-based activities.” A few notable recent publications that do offer templates and use successful tour-project designs include Skop (2009), Coe and Smyth (2010), Cheng, Barraclough, and Pulido (2011), Krakowska (2012), and Leydon and Turner (2012). This article contributes to burgeoning
literature outlining specific learning practices, particularly those offering concrete templates for merging field-based work with principles, practices, and pedagogies of social justice.

The more general literature on experiential learning outlines a long tradition of field trips and fieldwork exemplified by disciplines like geography. They consistently indicate the enduring value of direct engagements when paired with reflective exercises that help students more critically shape and reshape these engagements. At the most basic level, field experiences “create a strong sense of class identity and community,” and frequently prove “more memorable and enjoyable” to students, as well as “break down faculty-student barriers” (Leydon and Turner 2013, 249). Students engaged in such learning opportunities also have a greater chance to develop and engage with a variety of vital soft skills necessary for social justice work, including: embracing the value and role of affect, gaining an applied understandings of ethics, earning hands-on experience with teamwork, understanding nuanced models for and experiences with collaboration, and the ability to identify and qualify moments of personal development (Kent, Gilbertson, and Hunt 1997; Lai 2000; Stoltman and Fraser 2000). These sometimes indirect outcomes happily support both personal and intellectual growth. Krakowka (2012, 242) notes that well-designed fieldwork ensures geography learners can “internalize critical geographic theory and concepts that build a deeper understanding of general push to recover a social justice heritage for geography as exemplified by Peter Kropotkin and others. Similarly, Elwood (2004, 56) points to Michel DeCerteau’s notion of “spatial practice” as a way contextualizing experiential learning as the self-conscious “act of creating or transforming a place through everyday experience in it.”

This way of understanding engagement and transformation is also applicable to pedagogical approaches. DeCerteau’s conceptualization, Elwood tells us, “is strikingly resonant with theories of teaching and learning that envision students as active agents in their own learning processes” as well as in their communities. Not having fully considered this outcome in advance, I found the enhancement of spatial agency a substantial and encouraging result of the course and tours. During my class, and after our tours, students and guests commonly reflected on their new ability to reframe their relationship to the places with which we engaged and to newly vision how they could reproduce those geographies.

It is in this light that Wellens et al. (2006, 120 [emphasis original]) identify three aspects of experiential teaching and learning that engage social justice: “teaching about social transformation, teaching for social transformation, and finally, how to teach for social transformation.” In order to facilitate an effective social justice frame they suggest the need to begin with the concept of positionality. This is echoed by the failures in Hankins and Yarborough’s attempts to provide active learning exercises that ignored

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**Figure 1.** The first pages of the booklet reveal a two-page spread (11x17-inches) featuring the table of contents and an early twentieth century photograph of a local shoeshine, Jim Patton. Subsequent content pages included complete student narratives and similar visual presentations. (Color figure available online.)
Pedagogy, Race, and Student Learning through Geography

Figure 2. A student shares two stories in downtown Corvallis (one about Chinese disinterment and one about the Native American community long erased from this location). At this site a number of local passersby joined the tour group and offered to purchase a tour booklet.

the class backgrounds of most of their students (Wellens et al. 2006). Like Wellens, Hankins and Yarborough (2009, 122) find that “the student’s positionality is integral to the learning process. The views that students have are impacted through the structural position from which they have experienced the world,” and the role of the instructor is to strategically “draw these ideas into their everyday lives.” Heyman (2004, 148) extends the value of such reflective analysis to the design of student writing assignments that can highlight these positionalities and encourage student to reflectively step outside of their frames, and thereby provide an “intellectual framework that they can put into operation on the world.”

Following Wellens et al., my course and the final tour project taught about social transformation grounded by race, gender, and sexuality. The course was designed to not simply learn about social transformation but also to actively engage in these processes. The project design practiced methods of teaching and student learning that enacted and integrated social justice. The students actively negotiated, as Wellens and Yarborough and Hankins suggest, their own positionality—already marked by their racialized identities—across intersections of racial, gender, and sexual identities. The project facilitated students “stepping out” of themselves as a self-conscious means of putting their intellectual work into operation within their community.

Project Outcomes

Given our social justice framework and the town’s small population, and especially our efforts to actively connect history with the present, we intentionally focused on nonheteronormative and nonwhite experiences. We emphasized the importance of ongoing categories of difference that continue to negatively impact life chances and daily social experiences, rather than historic ethnic white experiences that might offer loosely parallel experiences. This choice limited our archival options. To compensate, we crafted our tour around both geography and analytical-narrative themes. We assigned each stop a theme: (1) resilience, (2) community, (3) visibility, (4) home, or (5) mobility. At each of our five tour stops we narrated several stories generated from archival research and stressed the interrelations within local geography.

The thematic approach reflected our much-discussed effort to highlight the agency of our subjects, rather than merely their subjections to discrimination and oppression. Consider the theme of mobility. Through mobility we could address, for example, segregated housing as a clear and social restriction of mobility. But, we could also highlight the creative modes of mobility exercised despite or in the face of those very restrictions. In this way, the context of racism, sexism, and homophobia was voiced. In short, we actively sought to uphold the complex humanity of our historical subjects. The individuals and communities narrated in our stories were neither iconized as examples of triumphant-via-hard-work individuals nor erased under abstract victimhood. They were presented as figures and groups negotiating a complex and culturally produced landscape with complex outcomes.

This approach challenged the general conception of our town as simply a white space, or the possibility of any space being white without considering how all spaces are racialized via a complex of relations and practices. It also actively addressed the force of discourse, as one student noted, reflecting how “language is a powerful tool that has been used to continue the oppression of many communities.” The fluidity of our themes and attention to language reflected the portable and contested nature of geography and space. The students found the themes to be an important approach, and key to understanding the project as a whole. One suggested that “once we started talking about the tour stops and their significance, along
with the themes of each stop and the narrative elements, that is what made me feel like I could see what we were doing.” While twenty stories are a relatively small sum when grouped together against dominant narratives, they proved especially impactful, even overwhelming, to many students and guests.

While we connected our stories via themes, each stop also marked a geographically relevant site for at least one of the narratives. For example, our second stop was themed community. We paused at the downtown site of a government station (now a drive-through coffee shop) where Japanese Americans were ordered to report for processing prior to internment in 1942. Using this location as platform, we opened the question of how individuals are included and excluded (usually both) from communities, physically and socially. The student tour guides collectively read aloud a letter of solidarity written by Japanese American students at our university trying to convey their “loyalty” to the nation and campus administration, and begging their help. The letter failed, marking their physical rejection from the community, yet it also indirectly illustrates how the students forged a sense of community shaped by their mutual experiences of race and racism. Transitioning from this story we then conveyed the experience of an ex-slave who purchased his wife’s freedom in a free state. This African American couple went on to own land and eventually donate property for an African American cemetery. These stories pointed to the creation of overlapping or multiple communities, and how space reflects and helps make concrete our ability to either gain acceptance to communities or the need to navigate conflicting geographies and create alternate space.

At our last stop, we visited the Biddle House, a well-established site along the town-sponsored tour circuits of historic homes. The house was built in 1856 by a man who ran a local drug store and then served as mayor in 1864. During our tour, we stood in the sizeable and tidy yard noting the well-kept 158-year-old structure, and briefly recounted his daughter’s prominent role in the history of our university. Alice was the first female graduate of our university’s very first graduating class in 1870. Both the city founder figure and his daughter are undoubtedly interesting figures. But neither lack in local representation. Indeed, they represent a particular and commonly narrated (dominant) experience and set of racialized identities (white).

The focus of our story was, instead, the interwoven connection between the Biddle family and Mary and Jason Lee, a Kalapuya [Native American] couple that worked within the Biddle household and thus were a critical part of that history, that house, this community. We had discovered that Mary prepared meals for the family and likely provided care for the Biddle children, including young future-college-graduate Alice. Alice’s father had served as Indian agent for the nearby Siletz agency (reservation) where local tribal peoples were relocated starting in 1856 (the very same year his home was built). When he concluded his post Biddle returned to Corvallis and brought his agency housekeeper, Mary Lee, with him. Mary in turn brought her husband, Jason.

While the archive only tells us about the Biddle family and their undeniable contributions to the town, our narrative told the interconnected story of an indigenous couple returning to the very homelands denied them by the founding of the town. The Lees’ families had been just recently displaced for the sake of all-white families (prominent and otherwise) who were now settled there. So, our story openly wrestled with the notion of Native American agency, and the difficult decisions the Lees faced in providing for themselves. Did they risk or forsake their culture and identity by working as servants? How did they come to terms with or refuse tribal dispossession? Did their labor roles allow them strategic if limited access to their homelands? How should we understand the ways that the Biddle’s successes were founded upon and subsidized by tribal displacement? We could not definitely answer all of these questions, but could firmly note that Mary and Jason Lee held fairly enviable servant positions with a prominent family, and that their stories have largely eluded the archive. We therefore creatively crafted a speculative but reasonable narrative out of their historic context.

As a geography project the fact of their presence was not the most important point. The most important idea, and the lesson learned by the students and conveyed to the guests, was that broader relationships are embedded everywhere within this and every other space of the town. The geography of Corvallis now looks different to them. It reflects some indigenous perspectives about dispossession and marginality in their homelands. Knowing the history was important. Standing in that yard, however, suddenly made these practices locatable. For those in attendance, the Biddle house could physically symbolize these relations and serve as a much more nuanced and truthful emblem of the town, its history, the people, and a host of ongoing social tensions. In these instances, our tactics stretched beyond history and geography to embrace a social justice practice that sometimes demands speculation and emotion. As Derek Gregory suggests, we need broadened methodological and pedagogical approaches when addressing race and space: “If we are to contest [phantasms of place]…we need more than careful, clinical analysis…because imaginative geographies rely not only on reason (in its multiple guises) but also on desire and affect” (Murphy et al. 2005, 185–186). Audrey Kobayashi reminds us that “anti-racist education is based on political action, where theory, practice, and personal experience provide a tripartite basis for understanding and ameliorating the effects of racialization” (in Castree et al. 2008, 703). This creative, narrative technique is powerful, as Modlin, Alderman, and Gentry (2011) argue in relation to the “affective inequality” in tour guide narrations of southern plantations, for example, which systematically reproduce empathy for slaveholding families while marginalizing enslaved peoples and downplaying the violence of the institution of slavery. To stand on the
Biddle site and share our stories proved more powerful than an abstracted reading, and reiterated the value of a walking tour and encountering geographies firsthand.

For those present, the totality of these stories reshaped the historical and racial geographies of our town. This rescripting sometimes resulted in the students and guests seeing or creating new relationships with this space. One guest explained in her evaluation: “I loved not only the tour but the statement that we made as a group of people of color gathering throughout Corvallis. The experience felt important and made our general invisibility in the city non-negotiable, persistent, and real as we stood there on the corner of downtown.” One of my student tour guides likewise found the experience impactful in redefining the physical and cultural spaces negotiated by students of color in a predominantly white town while attending a predominantly white institution. He noted, “This class gave me a great sense of what an applied community-based work can bring to a community, especially a community like Corvallis, which generally lacks in diversity” (Fig. 3). More than just a tour, the event was simultaneously a contemporary assertion of presence, a statement of possibility, and geographic reimagining.

Another of the student guides echoed this renewed sense of engagement with their local geography, stating that “most [of the guests] understood that what we did on the walking tour wasn’t just about saying ‘this happened 100 years ago’ and that was bad, but ‘what can we learn and see,’ ‘what does this make us think about,’ and ‘what’s happening… today?’” For him, the themed and spatial narrations removed the ability for the students and guests to relegate these stories to the past. The stories gained an ongoing spatial presence, rather than historic distance. They could see how issues of racialization and internment mattered right now, and that questions of immigration and citizenship continue to shape our cultural and physical landscape, and that we participate in such processes.

Some Guiding Principles

Some of the elements of this course required concerted preplanning to ensure its success (see appendix). Other elements required creativity. Both the preplanning and creativity were quite welcome and omnipresent points of discussion in our project process. In fact, the ethics of our project required that we not shy away from such challenges, but rather that we look at each as a genuinely productive opportunity for problem solving.

Notably, this approach is precisely the model for creating high-impact learning opportunities. Students struggled with and then thrived in a semistructured environment that required direct application of research, collaborative problem solving, creative logistical resolutions, and a sense of the stakes given our anticipated delivery to a public audience.

Such an approach was vital to our research process since we grappled with institutional archives that either rendered communities of color invisible or presented them in limited and sometimes explicitly racist ways. As one student notes in her reflection essay, “It was challenging to read the blatant racism that existed in the older writings we used as sources. I had to remember the lens that the texts were written through and how that slanted the story that was told.” A second student echoes this sentiment, noting that when sifting through the archives “it is hard to find any historical information that is written that depicts minority groups in a favorable light.”

Our group tasks required students to creatively and collaboratively collect data, make thoughtful and difficult decisions about deploying that data, and to work to produce something reflecting their learning as well as their thinking about that learning. Each class meeting we presented our materials, shared drafts of stories, and brainstormed solutions to problems, gaps, or inconsistencies. We actively discussed best approaches to telling our stories, which aspects to highlight or emphasize, which techniques were most appropriate, and how to responsibly give voice to another’s story with attention to embedded racial, gender, and sexuality-based representational considerations. Each week the students collaborated to workshop their
narratives and ensure they developed a coherent and consistent quality tour.

Our approach to the materials was partly guided by Michel-Rolph Trouillot’s (1995) discussion of public history projects. Trouillot helped us consider the ways that history, especially in its intersections with geography, are not about the past but really all about the present moment. Such projects always reflect and attempt to signpost our current identities. As Trouillot (1995, 148) suggests, “Historical authenticity resides not in the fidelity to an alleged past but in an honesty vis-à-vis the present as it re-presents that past.” This theoretical guidance shifted our attention away from crafting historical and factual accounts of the local past toward explicitly narrating how our histories and geographies mostly reflect and shape our current and ongoing lives.

This intellectual positioning gave us license to take openly political stances and to draw out the kinds of connections that are sometimes left implicit or ignored altogether in historical tours and geography fieldwork projects. We were freed to operate with a fluid approach to using archives that did not cooperate with our project’s goals. In fact, one of our most valuable genres of inspiration was fiction writing. After a visit by a colleague from our literature department, we focused our energy on channeling the scarce historical data into feasible but explicitly creative narratives. Noting this moment of empowerment, one student reflected how he finally “realized what we were truly undertaking; we were researching the lives of our subjects, but also filling in when there was a lack of historic information.” Another student revealed that in their engagement with the archives, the “lesson I learned was how to give voice to our research subjects in a way that used personal narratives that were based on historic information. This could be challenging in some cases. For example, I had no written information to write the narrative about ‘Sunny’ Jim Patton as there was none available and had to base my work off of two photographs. Having an understanding of the racial climate and general history of the time period was very helpful in writing this narrative. Additionally, the Mary and Jason Lee story was also a little challenging as they were only briefly mentioned in a much larger description of the Biddle family.”

Over the years I have enjoyed a number of walking tours, many of which focused on city founders. Such normative stories are of course important and certainly convey the impact those powerful individuals had in the cultures, economies, infrastructure, and politics of a locality. But they are also not the totality of the community and certainly not the highlights for subcommunities and marginalized peoples that often held tense relations with those very same important figures and the larger, dominant society. Of special concern for geography, these tensions between dominant and marginalized communities are often precisely about space: How are absence and presence manifested spatially? How are notions of difference used in determining access to social and institutional resources? Which spaces were used for what purposes? Who decides? How is this enforced? How does physical location reflect and inform social location?

I have found that the city founder-style tours tend to merge together historical figures and architectural interests. Often a building is simply marked as notable because of the important figures that made use of it, paid for it, or otherwise had an affiliation. Sometimes the names and deeds simply open discussion about the architectural details and the survival of the structure. What we forget is how those spaces were usually explicitly racialized (gendered, sexualized) in both their construction and eventual preservation. This gap is then compounded by the absence of articulations or the rearticulations of absence regarding communities of color. In short, race is one of the embedded reasons why historic structures are preserved in the first place. In Corvallis, many homes of city founders remain and are now marked by plaques. We have restored and officially protected via historic designation dozens of houses like the Avery House, Taylor House, and Wilson House. On our tour, we stopped at a dilapidated home built by two African American women in 1856 (same as the Biddle’s). These women narrowly avoided both gendered and racial restrictions on property ownership, and provided an important residential corridor for a number of African American residents. But only recently has a modest historic marker been added to identify its value. In fact, the home was only saved from recent demolition by the good intentions and pocketbook of one resident interested in its historic value (Fig. 4).

**Class Size, Assessments, and Replicability**

Although only four students ultimately participated, the total number of students in this course can be understood as both limitation and encouragement. With a moderate increase in students, the overall organization I present here could remain intact and the division of responsibilities and negotiation of interactions would require only slightly more oversight. Certainly, the intimate enrollment means that relatively larger courses, say of twenty-five, would require a different sort of weekly engagement, and necessitate adjustments given the amount of details to be managed, or trimming outcomes. This project is probably only suited for large classes if divided into minitours, like the model used by Coe and Smyth in Havana (Coe and Smyth 2010).

While larger classes demand more attention to logistics, the fact that such an ambitious project can be accomplished by a small group of students suggests that a larger cohort might actually greatly enhance tour elements, including providing a greater depth of research, more elaborate use of visual or creative elements, and lessened responsibilities for each student. More energy could also be directed toward fostering better community engagement with other local institutions.

Skop (2009) offered a similar project, centered on a conference tour and also relying on just four student volunteers. Her successful outcome likewise illustrated the
Figure 4. A student delivers her story in front of the oldest home built by African Americans in the state of Oregon. Renewed interest in the site has generated support for restoring the dilapidated home to serve as a protected heritage or museum space.

ability for a small and dedicated group of students to embrace their learning and produce impactful outcomes. In her case, one of the split, simultaneous tours was led by the faculty member. In my case, I operated only as logistical coordinator (much like Coe and Smyth). While the extramural nature of Skop’s project is inspiring, it reduces the ability to assess the value of that approach for students who may not have immediate investment in the project and just happen to be enrolled. Most of my students had little idea of what to expect, and were at the outset challenged in comprehending let alone actualizing the project vision.

I assessed the course and project a number of ways, including student reflections. Informal student feedback and their required reflective essays all conveyed substantial satisfaction with the course design, learning objectives, and project outcomes. As many of the quotes in this article indicate, the students clearly identified and appreciated their engagement with high-impact practices, despite us not having previous explicit discussion of such techniques. As one student reflected, “Being unfamiliar with the concept/definition of experiential learning, I had to look up an explanation. That’s good. I learned a lot.” We also collected evaluations during the final leg of the tour and post-tour through mobile technologies and a Web-based survey tool. From the first tour we received forty-one responses from a possible fifty participants. My assessment data showed that ninety percent of our guests felt that our tour should be offered again as a class. Ninety-five percent of attendees thought it should be added to the city’s current docket of walking tours, indicating its perceived value for the wider community. I hosted a two-hour discussion forum with the faculty from the summer workshops and another with residential advisors. I used these opportunities to collect feedback, as well as participate in a robust dialogue about creating such projects or using them to design other engaged projects.

Based on the evaluations and discussions, a number of the guests clamored for more opportunities for dialogue and community building. Feedback included statements about incorporating more interaction or expanding the scope of participation. Comments included: “Next time, it would be cool to infuse some activities,” and “Would have loved maybe an opportunity for interaction between the participants.” Others noted they wanted to use the interaction to connect more with fellow guests. One wanted “to do some group activities of reflection to get to engage in dialogue and get to know each other.”

A few sought direct input in the project outcomes or experiences. One thought “it would be good to have participants share their stories if they have any regarding their personal historical knowledge of Corvallis and also to have guest story tellers who have personal direct connection to some of the history shared.” This last idea, while seemingly limited to adding contributions by those with historical knowledge, also opens the possibility for an ongoing collection of contemporary experiences that would be of interest as future archive materials. This suggestion has already been incorporated for upcoming versions of this course.

On the one hand the guest feedback means the tour project itself did not effectively accommodate sufficient formal interactive moments between hosts/guides and guests or among participants. The requests for this addition to the project also highlights the unique and powerful role such a project can play in generating intergroup dialogue forums and creating opportunities for community building. I agree with this feedback, even while I would assert that the community-building requests reflect the engagement moments that did take place on the school bus between locations. They just wanted more.

Because of our timeline (we did not formally structure in community-building exercises, make room for co-creation with guests, or facilitate much dialogue beyond a closing
opportunity for discussion, reflections, and questions. This choice was intentional, both as a logistic concern and as a decision to prioritize the more immediate student learning and outcomes. We aimed to minimize the time requested of guests in order to maximize participation, and explicitly positioned this project as a platform for generating ongoing conversations. Such continuations have already emerged in the form of collaborative project ideas, from requests for the tour as staff training modules, campus art projects based on tour, and local community institutions pledging to support permanent tour markers.

While these conversation extensions are precisely the kind of outcomes we hoped might result from the tour, for the tour itself we focused our attention on the more material and demonstrable student outcomes, rather than seek out the more holistic goals. Neither is mutually exclusive, of course, and incorporating this feedback might easily accomplish the same set of goals in a different way. While a more interactive and engaged model could certainly be developed, it is worth noting how and why this would change the project outcomes and overall project experiences for the students and class design.

I cannot speak to the immense location variations others might face and that would change the structure and approach of such a project. I would suggest that the model used here should be feasible anywhere. Places with some density, or with sufficient support to enable transportation to more distant sites, can be arranged according to the sites of interest. The design can be shifted to accommodate the intended size and nature of the audience. The audience could be composed entirely of the class and instructor. You can arrange for a larger invited audience or prepare for an open-ended public audience of undetermined size. Timelines can also be adjusted to match needs or capacity issues.

A more substantial several hour, half-day, or day-long tour might provide a desirable alternative for sites requiring more travel or wanting to incorporate more relationship-building or sustained-learning opportunities. So, one might organize debriefing, strategizing, or brainstorming sessions as groups traveled between sites. In more dense urban spaces with relatively easy access to a number of sites, a more dispersed model might prove more appealing. Following the model used by Coe and Smyth (2010) in Havana, students with smaller audience pools or small-scale circuits can offer microtours. Perhaps less ideal, given my assessment of the value of physically traveling through and engaging with the landscape, tours could be delivered virtually via post-tour presentations, videos, or remote but live on-site reporter conferencing.

Lastly, an internal university grant supported the delivery of this hands-on learning opportunity. Local conditions and funding opportunities are important considerations for the design of any similar project. For example, if a tour can proceed without a bus, these costs would be eliminated. However, one must then account for weather and physical accessibility.

**CONCLUSION**

My takeaways from the class experience, student reflections, and the community assessments indicate that using projects such as these are exceptionally successful and worthwhile well in excess of the admittedly extra labor required. Importantly, our collaborations with the local historical society and campus archives proved invaluable for expediting the research experience, facilitating production of our narratives, and engaging our community.

The most important design feature was our hands-on approach or workshop-like use of class time. Our turning point proved the introduction of creative license when the students finally saw the avenue for their contributions and the potential of the tour. They suddenly felt empowered to craft their narratives and gained full ownership over the project. As one student reflected, “One thing I felt worked well was the class discussion, and editing of each individual narrative. I got a lot of feedback, and with the small class size, it was easy to make your voice heard. [The work was] serious, but we were allowed to be creative at the same time.” I am currently offering the same class with a new set of students (seven this time) and generating new stories. We have expanded our timeline and are considering adding contemporary narratives from the students themselves and local community members.

Students clearly saw the course outcomes applying. As one noted in the final reflective essay, “Not only did I learn a lot about developing research into an impactful product, I gained skills that will transfer over to my professional life.” The power of the project and course design provided both the students and our tour participants a valuable means to turn theory into practice. In all, this interdisciplinary project provided students concrete leadership opportunities and the chance to become, in effect, research activists. Their work mirrored Merrett’s (2004, 93) advice: “Teachers can either offer an uncritical, ‘neutral’ education that supports the status quo or choose to empower students to question dominant ideas, possibly leading to social change.”

Several future research areas need attention by scholars wanting to better participate in community engagement and field experiences that also involve social justice. First, the research of high-impact learning practices on underrepresented students remains limited. We would all benefit from a more long-term study of the specific impacts such pedagogical approaches have for underserved students. Likewise, it would be useful to have an analysis and concise presentation of model geography programs that have proven capable of attracting a diverse student body and effectively working with local communities on social justice-based learning projects. We still do not seem to know enough about what conditions positively impact concrete diversity outcomes in fields like geography. Second, given the shape of my project in a small, heterogeneous, and rural location, it is important to more thoughtfully consider the differences such a project would have when implemented in a bigger, more diverse city. How precisely do rural or urban
contexts change such projects? How might diversity shift approaches to social justice learning experiences? Third, while funding may be seen as a more localized or logistical concern, I continue to see a need for real cost and non-financial support templates that help teacher-practitioners craft innovative and engaging learning experiences. I would suggest that this sort of research would further illustrate how such teaching and learning endeavors are not just about pedagogical techniques, but also valuable points of analysis for strategically engaging with our communities.

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NOTE

1. The app content is triggered by proximity to tour sites; contact the author for access/more information.

REFERENCES


**APPENDIX: ARCHITECTURE OF THE TOUR**

1. **Course design**

   - Predetermined several research topics and options.
   - Prearranged archival research agreements.
   - Formatted in-class meetings as workshops.
   - Supplied readings to guide understanding of theories, methods, ethics, and as samples of public walking tour outcomes and approaches.
   - Centered the tour as the main student (collaborative) product.
   - Required student reflection essays to review course experience and enhance project assessment.

2. **Funding**

   - Secured an institutional faculty development grant for transportation, script booklets, snacks/water, photography publicity, general copy costs, and historical photo permissions.

3. **Transportation**

   - Hired a school bus and driver for tour participants and guides.

4. **Documentation/publicity**

   - Contracted a campus-based photographer.
   - Used photos for Web site stories and other promotional materials.
   - Invited local newspaper, which resulted in our tour being featured on the front page of that week’s Sunday edition (circulation 25,000).

   - Submitted news article to daily campus e-news, which also featured project.

5. **Script and images for digital presentation**

   - Purchased or secured (in-kind) photo use permissions.

6. **Script booklets**

   - Designed an early template for the booklets on MS Publisher. Student content was inserted when completed. Historical photographs were featured.
   - Ensured booklet was Image-heavy and featured an introductory statement, map of the tour, and student profiles.
   - Produced high-quality booklets through a local printing company.
   - Used booklets as tour guide scripts and as parting gifts for our guests.

7. **Assessment tools**

   - Developed a survey for guests with guidance by colleagues more experienced in survey tools.
   - Used our campus-affiliated survey tool, Qualtrics, for easy Web access, automatic response collation, and report generation.

8. **Logistics of tour**

   - Conducted two practice runs (one partial and one full) to refine our timing.
   - Ran two practice tours in order to test timing, scout locations, identify sound issues, identify transportation/travel challenges, locate shade and cover spots, and determine ideal positions for delivering the narratives and presenting sites.
   - Supplied light snacks and water.
   - Attended other local tours to practice critique and emulation.

9. **Equipment**

   - Secured voice amplification tools (RescueMan devices) to overcome issues of vehicle noise and crowd size.
   - Practiced with amplification equipment to ensure comfort, gain operational knowledge, and to
determine appropriate volume settings for each location.

10. Guest list development

- Invited more than 150 guests; selected based on interest in the project, previous partnerships, strategic value, and some personal friendships.
- Invitations were accompanied by flyers: one for invitation and a second one including tour preparation suggestions, such as bringing smartphones for assessment and engaging mobile application.

11. Mobile application (app) development

- Worked directly with campus technologies partners to develop a mobile application that would create a platform for access by future interested parties and the larger community.
- Tested app on multiple platforms and collaborated with staff to make changes and problem-solve.
- Once trained, directly uploaded and edited content.
I

Oppression

Marilyn Frye

Marilyn Frye compares the oppression of women to the situation of a bird in a cage. A woman can become caught in a bind where, no matter what she chooses to think, say, or do, a bar puts difficulties in her path. These barriers are often difficult to recognize, because it is not easy to perceive them as parts of a configuration and because of the attempts made to hide their more pernicious aspects. This configuration of bars restricts men, as well. But the system, as a whole, benefits men.

Frye teaches philosophy and feminist theory at Michigan State University. Her writings are based directly on her life as a woman and lesbian. (Selections by Marilyn Frye are also included in Parts IV and VI.)

Reading Questions

1. What is the difference between being miserable and being oppressed?
2. What is the difference between having limits set for you, having barriers put in your way, and being oppressed?
3. What is the difference between frustration and oppression?

It is a fundamental claim of feminism that women are oppressed. The word “oppression” is a strong word. It repels and attracts. It is dangerous and dangerously fashionable and endangered. It is much misunderstood, and sometimes not innocently.

The statement that women are oppressed is frequently met with the claim that men are oppressed too. We hear that oppression is oppressive to those who oppress as well as to those they oppress. Some men cite as evidence that oppressors are affected by their oppression their much-advertised inability to cry. It is tough, we are told, to be masculine.

When the stresses and frustrations of being a man are cited as evidence that oppressors are oppressed by their oppression, the word “oppression” is being stretched to meanlessness; it is treated as though its scope includes any and all human experience of limitation or suffering, no matter the cause, degree, or consequence.

Once such usage has been put over on us, then if we deny that any person or group is oppressed, we seem to imply that we think they never suffer and have no feelings. We are accused of insensitivity; even of bigotry. For women, such accusation is particularly intimidating, since sensitivity is one of the few virtues that has been assigned to us. If we are found insensitive, we may fear we have no redeeming traits at all and perhaps are not real women. Thus we are silenced before we begin: the name of our situation drained of meaning and our guilt mechanisms triggered. But this is nonsense. Human beings can be miserable without being oppressed, and it is perfectly consistent to deny that a person or group is oppressed without denying that they have feelings or that they suffer.

We need to think clearly about oppression, and there is much that mitigates against this. I do not want to undertake to prove that women are oppressed (or that men are not), but I want to make clear what is being said when we say it. We need this word, this concept, and we need it to be sharp and sure.

I

The root of the word “oppression” is the element “press.” The press of the crowd; pressed into military service; to press a pair of pants; printing press; press the button.Presses are used to mold things or flatten them or reduce them in bulk, sometimes to reduce them by squeezing out the gases or liquids in them. Something pressed is something caught between or among forces and barriers which are so related to each other that jointly they restrain, restrict, or prevent the thing’s motion or mobility. Mold. Immobilize. Reduce.

The mundane experience of the oppressed provides another clue. One of the most characteristic and ubiquitous features of the world as experienced by oppressed people is the double bind—situations in which options are reduced to a very few, and all of them expose one to penalty, censure, or deprivation. For example, it is often a requirement upon oppressed people that we smile and be cheerful. If we comply, we signal our docility and our acquiescence in our situation. We need not, then, be taken note of. We acquiesce in being made invisible, in our occupying no space. We participate in our own erasure. On the other hand, anything but the sunniest countenance exposes us to being perceived as mean, bitter, angry, or dangerous. This means, at the least, that we may be found “difficult” or unpleasant to work with, which is enough to cost one’s livelihood; at worst, being seen as mean, bitter, angry or dangerous has been known to result in rape, arrest, beating, and murder. One can only choose to risk one’s preferred form and rate of annihilation.

Another example: It is common in the United States that women, especially younger women, are in a bind where neither sexual activity nor sexual inactivity is all right. If she is heterosexually active, a woman is open to censure and punishment for being loose, unprincipled, or a whore. The “punishment” comes in the form of criticism, snide and embarrassing remarks, being treated as an easy lay by men, scorn from her more restrained female friends. She may have to lie and hide her behavior from her parents. She must juggle the risks of unwanted pregnancy and dangerous contraceptives. On the other hand, if she refrains from heterosexual activity, she is fairly constantly harried by men who try to persuade her into it and pressure her to “relax” and “let her hair down”; she is threatened with labels like “frigid,” “uptight,” “manhater,” “bitch,” and “cocktease.” The same parents who would be disapproving of her sexual activity may be worried by her inactivity because it suggests she is not or will not be popular, or is not sexually normal. She may be charged with lesbianism. If a woman is raped, then if she has been heterosexual active she is subject to the presumption that she liked it (since her activity is presumed to show that she likes sex), and if she has not been heterosexual active, she is subject to the presumption that she did not like it (since she is supposedly “repressed and frustrated”). Both heterosexual activity and heterosexual nonactivity are likely to be taken as proof that you wanted to be raped, and hence, of course, weren’t really raped at all. You can’t win. You are caught in a bind, caught between systematically related pressures.

Women are caught like this, too, by networks of forces and barriers that expose one to penalty, loss, or contempt whatever one works outside the home or not, is on welfare or not, bears children or not, raises children or not, marries or not, stays married or not, is heterosexual, lesbian, both, or neither. Economic necessity, confinement to racial and/or sexual labor, ghetto; sexual
harassment; sex discrimination; pressures of competing expectations and judgments about women, wives, and mothers (in the society at large, in racial and ethnic subcultures and in one's own class); dependence (full or partial) of husbands, parents, or the state; commitment to political ideals; loyalties to racial or ethnic or other "minority" groups; the demands of self-respect and responsibilities to others. Each of these factors exists in complex tension with every other, dehumanizing or prohibiting all of the apparently available options. And nipping at one's heels, always, is the endless pack of little things. If one circuses one way, one is subject to the assumption that one is advertising one's sexual availability; if one dresses another way, one appears to "not care about oneself" or to be "inferior." If one uses "strong language," one invites categorization as a whore or slut; if one does not, one invites categorization as a "lady"—one too delicately constituted to cope with robust speech or the realities to which it presumably refers.

The experience of oppressed peoples is that the living of one's life is confined and shaped by forces and barriers which are not accidental or occasional and hence avoidable, but are systematically related to each other in such a way as to catch one between and among them and restrict or penalize motion in any direction. It is the experience of being caged: All avenues, in every direction, are blocked or booby trapped.

Cages. Consider a birdcage. If you look very closely at just one wire in the cage, you cannot see the other wires. If your conception of what is before you is determined by this myopic focus, you could look at that one wire, up and down the length of it, and be unable to see why a bird would choose any one of the other wires. AGAIN, one wire went to want somewhere. Furthermore, even if, one day at a time, you myopically inspected each wire, you still could not see why a bird would have trouble going past the wire to get anywhere. There is no physical property of any one wire, nothing that the closest scrutiny could discover, that will reveal how a bird could be inhibited or hampered by it except in the most accidental way. It is only when you step back, stop looking at the wires one by one, microscopically, and take a macroscopic view of the whole cage, that you can see why the bird does not go anywhere, and then you will see in a moment. It will require no great subtlety of mental powers. It is perfectly obvious that the bird is surrounded by a network of systematically related barriers, no one of which would be the least hindrance to its flight, but which, by their relations to each other, are as confining as the solid walls of a dungeon.

It is now possible to grasp one of the reasons why oppression can be hard to see and recognize: one can study the elements of an oppressive structure with great care and some good will without seeing the structure as a whole, and hence without seeing or being able to understand that one is looking at a cage and that there are people there who are caged, whose motion and mobility are restricted, whose lives are shaped and reduced.

The arresting of vision at a microscopic level yields such common confusion as that about the male door-opening ritual. This ritual, which is remarkably widespread across classes and races, puzzles many people, some of whom do and some of whom do not find it offensive. Look at the scene of the two people approaching a door. The male steps slightly ahead and opens the door. The male holds the door open while the female glides through. Then the male goes through. The door closes after them. "Now how," one innocently asks, "can those crazy women's libbers say that is oppressive? The guy removed a barrier to the lady's smooth and untruffled progress." But each repetition of this ritual has a place in a pattern, in fact in several patterns. One has to shift the level of one's perception in order to see the whole picture.

The door-opening ritual pretends to be a helpful service, but the helpfulness is false. This can be seen by noting that it will be done whether or not it makes any practical sense. Infirm men and men burdened with packages will open doors for able-bodied women who are free of physical burdens. Men will impose themselves awkwardly and ostentatiously in order to get to the door first. The act is not determined by convenience or grace.

Furthermore, these very numerous acts of unneeded or even nonsensical "help" occur in counterpoint to a pattern of men not being helpful in many practical ways in which women might welcome help. What women experience is a world in which gallant princes charmingly make a fuss about being helpful and providing small services when help and services are of little or no use, but in which there are rarely ingenious and adroit princes at hand when substantial assistance is really wanted either in mundane affairs or in situations of threat, assault, or terror. There is no help with the (his) laundry; no help劈yng a report at 6:00 A.M.; no help in mediating disputes among relatives or children. There is nothing but advice that women should stay indoors after dark, be chaperoned by a man, or if it comes down to it, "die back and enjoy it."

The gallant gestures have no practical meaning. Their meaning is symbolic. The door-opening and similar services provided are services which really are needed by people who are for one reason or another incapacitated—unwell, burdened with parcels, etc. So the message is that women are incapable. The detachment of the acts from the concrete realities of what women need and do not need is a vehicle for the message that women's actual needs and interests are unimportant or irrelevant. Finally, these gestures imitate the behavior of servants toward masters and thus mock women, who are in most respects the servants and caretakers of men. The message of the false helpfulness of male gallantry is female dependence, the invisibility or insignificance of women, and contempt for women.

One cannot see the meanings of these rituals if one's focus is riveted upon the individual event in itself, just including the particularity of the individual man's present conscious intentions and motives and the individual woman's conscious perception of the event in the moment. It seems sometimes that people take a deliberately myopic view and fill their eyes with things seen microscopically in order not to see macroscopically. At any rate, whether it is deliberate or not, people can and do fail to see the oppression of women because they fail to see macroscopically and hence fail to see the various elements of the situation as systematically related in larger patterns.

As the caginess of the bird cage is a macroscopic phenomenon, the oppressiveness of the situations in which women live our various and different lives is a macroscopic phenomenon. Neither can be seen from a microscopic perspective. But when you look macroscopically you can see it—a network of forces and barriers which are systematically related and which conspire to the immobilization, reduction, and moldering of women and the lives we live...
and to whose benefit or detriment it works. As soon as one looks at examples, it becomes obvious that not everything that frustrates a person is oppressive, and not every harm or damage is due to or contributes to oppression.

If a rich white playboy who lives off income from his investments in South African diamond mines should break a leg in a skiing accident at Aspen and wait in pain for hours before he is rescued, we may assume that in that period he suffers. But the suffering comes to an end; his leg is repaired by the best surgeon, he can buy it and he soon recuperates in a lavish suite, sipping Chivas Regal. Nothing in this picture suggests a structure of barriers and forces. He is a member of several oppressor groups and does not suddenly become oppressed because he is injured and in pain. Even if the accident was caused by someone’s malicious negligence, and hence someone can be blamed for it and morally faulted, that person still has not been an agent of oppression.

Consider also the restriction of having to drive one’s vehicle on a certain side of the road. There is no doubt that this restriction is almost unbearably frustrating at times, when one’s lane is not moving and the other lane is clear. There are surely times, even, when abiding by this regulation would have harmful consequences. But the restriction is obviously wholesome for most of us, most of the time. The restraint is imposed for our benefit, and does benefit us; its operation tends to encourage us to continue in motion, not to immobilize us. The limits imposed by traffic regulations are limits most of us would cheerfully impose on ourselves given that we knew others would follow them too. They are part of a structure which shapes our behavior, not to our reduction and immobilization, but rather to the protection of our continued ability to move and act as we will.

Another example: The boundaries of a racial ghetto in an American city serve to some extent to keep white people from going in, as well as to keep ghetto dwellers from going out. A particular white citizen may be frustrated or feel deprived because s/he cannot stroll around there and enjoy the “exotic” aura of a “foreign” culture, or shop for bargains in the ghetto swap shops. In fact, the existence of the ghetto, of racial segregation, does deprive the white person of knowledge and harm her/his character by nurturing unwarranted feelings of superiority. But this does not make the white person in this situation a member of an oppressed race or a person oppressed because of her/his race. One must look at the barrier. It limits the activities and the access of those on both sides of it (though not to different degrees). But it is a product of the intention, planning, and action of whites for the benefit of whites, to secure and maintain privileges that are available to whites generally, as members of the dominant and privileged group. Though the existence of the barrier has some bad consequences for whites, the barrier does not exist in systematic relationship with other barriers and forces forming a structure oppressive to whites; quite the contrary. It is part of a structure which oppresses the ghetto dwellers and thereby (and by white intention) protects and furthers white interests as dominant white culture understands them. This barrier is not oppressive to whites, even though it is a barrier to whites.

Barriers have different meanings to those on opposite sides of them, even though they are barriers to both. The physical walls of a prison no more dissolve to let an outsider in than to let an insider out, but for the insider they are confining and limiting while to the outsider they may mean protection from what s/he takes to be threats posed by insiders—freedom from harm or anxiety. A set of social and economic barriers and forces separating two groups may be felt, even painfully, by members of both groups and yet may mean confinement to one and liberty and enlargement of opportunity to the other.

The service sector of the wives/mommas’ assistants/girls is almost exclusively a woman-only sector; its boundaries not only enclose women but to a very great extent keep men out. Some men sometimes encounter this barrier and experience it as a restriction on their movements, their activities, their control or their choices of “life-style.”

Thinking they might like the simple, untutored life (which they may imagine to be quite free of stress, alienation, and hard work), and feeling deprived since it seems closed to them, they then upon announce the discovery that they are oppressed, too, by “sex roles.” But that barrier is erected and maintained by men, for the benefit of men. It consists of cultural and economic forces and pressures in a culture and economy controlled by men in which, at every economic level and in all racial and ethnic subcultures, economy, tradition—and even ideologies of liberation—work to keep at least local culture and economy in male control.

The boundary that sets apart women’s sphere is maintained and promoted by men generally for the benefit of men generally, and men generally do benefit from this existence, even the man who bumps into it and complains of the inconvenience. That barrier is protecting his classification and status as a male, as superior, as having a right to sexual access to a female or females. It protects a kind of citizenship which is superior to that of females of his class and race, his access to a wider range of better paying and higher status work, and his right to prefer unemployment to the degradation of doing lower status or “women’s” work.

If a person’s life or activity is affected by some force or barrier that person encounters, one may not conclude that the person is oppressed simply because the person encounters that barrier or force; nor simply because the encounter is unpleasant, frustrating, or painful to that person at that time, nor simply because the existence of the barrier or force, or the processes which maintain or apply it, serve to deprive that person of something of value. One must look at the barrier or force and answer certain questions about it. Which constructs and maintains it? Whose interests are served by its existence? Is it part of a structure which tends to confine, reduce, and immobilize some group? Is the individual a member of the confined group? Various forces, barriers, and limitations a person may encounter or live with may be part of an oppressive structure or not, and if they are, that person may be on either the oppressed or the oppressor side of it. One cannot tell which by how loudly or how little the person complains.

IV

Many of the restrictions and limitations we live with are more or less internalized and self-monitor and are part of our adaptations to the requirements and expectations imposed by the needs and tastes and tyrannies of others. I have in mind such things as women’s cramped postures and attenuated strides and men’s restraint of emotional self-expression (except for anger). Who gets what out of the practice of these disciplines, and who imposes what penalties for improper relaxations of them? What are the rewards of this self-discipline?

Can men cry? Yes, in the company of women. If a man cannot cry, it is in the company of men that he cannot cry. It is men, not women, who require this restraint and men not only require it, they reward it. The man who maintains a steady or tough or laid-back demeanor (all are forms which suggest invulnerability) marks himself as a member of the male community and is esteemed by other men. Consequently, the maintenance of that demeanor contributes to the man’s self-esteem. It is felt as good, and he can feel good about himself. The way this restriction fits into the structures of men’s lives is as one of the socially required behaviors which, if carried off, contribute to their acceptance and respect by significant others and to their own self-esteem. It is to their benefit to practice this discipline.

Consider, by comparison, the discipline of women’s cramped physical postures and attenuated stride. This discipline can be relaxed in the company of women; it generally is at its most
strenuous in the company of men.* Like men’s emotional restraint, women’s physical restraint is required by men. But unlike the case of men’s emotional restraint, women’s physical restraint is not rewarded. What do we get for it? Respect and esteem and acceptance? No. They mock us and parody our mincing steps. We look silly, incompetent, weak, and generally contemptible. Our exercise of this discipline tends to low esteem and low self-esteem. It does not benefit us. It fits in a network of behaviors through which we constantly announce to others our membership in a lower caste and our unwillingness and/or inability to defend our bodily or moral integrity. It is degrading and part of a pattern of degradation.

Acceptable behavior for both groups, men and women, involves a required restraint that seems in itself silly and perhaps damaging. But the social effect is drastically different. The woman’s restraint is part of a structure oppressive to women; the man’s restraint is part of a structure oppressive to women.

V

One is marked for application of oppressive pressures by one’s membership in some group or category. Much of one’s suffering and frustration befalls one partly or largely because one is a member or that category. In the case at hand, it is the category, woman. Being a woman is a major factor in my not having a better job than I do; being a woman selects me as a likely victim of sexual assault or harassment; it is my being a woman that reduces the power of my anger to a proof of my insanity. If a woman has little or no economic or political power, or achieves little of what she wants to achieve, a major causal factor in this is that she is a woman. For any woman of any race or economic class, being a woman is significantly attached to whatever disadvantages and deprivations she suffers, be they great or small.

None of this is the case with respect to a person’s being a man. Simply being a man is not what stands between him and a better job; whatever assaults and harassments he is subject to, being male is not what selects him for victimization; being male is not a factor which would make his anger impotent—quite the opposite. If a man has little or no material or political power, or achieves little of what he wants to achieve, his being male is no part of the explanation. Being male is something he has going for him, even if race or class or age or disability is going against him.

Women are oppressed, as women. Members of certain racial and/or economic groups and classes, both the males and the females, are oppressed as members of those races and/or classes. But men are not oppressed as men.

... and isn’t it strange that any of us should have been confused and mystified about such a simple thing?

Further Questions

1. Think of a situation that is an example of being caught in the type of birdcage Frye describes. Can a person’s confinement in such a birdcage be seen only by viewing the larger situation, as Frye claims?

2. Frye says that the action of a man opening a door for a woman is part of an oppressive structure. Do you agree?

3. Frye believes that men’s inability to cry is not a form of oppression. Does she make too little of this constraint on men’s behavior?
Ten Things Everyone Should Know about Race

Race is a modern idea. Ancient societies, like the Greeks, did not divide people according to physical differences, but according to religion, status, class or even language. The English word “race” turns up for the first time in 1508 poem by William Dunbar referring to a line of kings.

Race has no genetic basis. Not one characteristic, trait or even gene distinguishes all the members of one so-called race from all the members of another so-called race.

Human subspecies don’t exist. Unlike many animals, modern humans simply haven’t been around long enough, nor have populations been isolated enough, to evolve into separate subspecies or races. On average, only one of every thousand of the nucleotides that make up our DNA differ one human from another. We are one of the most genetically similar of all species.

Skin color really is only skin deep. The genes for skin color have nothing to do with genes for hair form, eye shape, blood type, musical talent, athletic ability or forms of intelligence. Knowing someone’s skin color doesn’t necessarily tell you anything else about them.

Most variation is within, not between, “races.” Of the small amount of total human variation, 85% exists within any local population. About 94% can be found within any continent. That means, for example, that two random Koreans may be as genetically different as a Korean and an Italian.

Slavery predates race. Throughout much of human history, societies have enslaved others, often as a result of conquest or debt, but not because of physical characteristics or a belief in natural inferiority. Due to a unique set of historical circumstances, North America has the first slave system where all slaves shared a common appearance and ancestry.

Race and freedom were born together. The U.S. was founded on the principle that “All men are created equal,” but the country’s early economy was based largely on slavery. The new idea of race helped explain why some people could be denied the rights and freedoms that others took for granted.

Race justified social inequalities as natural. The “common sense” belief in white superiority justified anti-democratic action and policies like slavery, the extermination of American Indians, the exclusion of Asian immigrants, the taking of Mexican lands, and the institutionalization of racial practices within American government, laws and society.

Race isn’t biological, but racism is still real. Race is a powerful social idea that gives people different access to opportunities and resources. The government and social institutions of the United States have created advantages that disproportionately channel wealth, power, and resources to white people.

Colorblindness will not end racism. Pretending race (or the implications of race) doesn’t exist is not the same as creating equality.

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Whose culture has capital? A critical race theory discussion of community cultural wealth

Tara J. Yosso *

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Abstract

This article conceptualizes community cultural wealth as a critical race theory (CRT) challenge to traditional interpretations of cultural capital. CRT shifts the research lens away from a deficit view of Communities of Color as
places full of cultural poverty disadvantages, and instead focuses on and learns from the array of cultural knowledge, skills, abilities and contacts possessed by socially marginalized groups that often go unrecognized and unacknowledged. Various forms of capital nurtured through cultural wealth include aspirational, navigational, social, linguistic, familial and resistant capital. These forms of capital draw on the knowledge’s Students of Color bring with them from their homes and communities into the classroom. This CRT approach to education involves a commitment to develop schools that acknowledge the multiple strengths of Communities of Color in order to serve a larger purpose of struggle toward social and racial justice.

Additional information

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Notes

Although not exhaustive, the following resources are some examples of the different frameworks cited: ethnic studies (see *Aztlan: A Journal of Chicano Studies*); feminist studies (see *Frontiers: A Journal of Women’s Studies*);
cultural nationalist paradigms (see Asante, 1987); critical legal studies (see Kelman, 1989); Marxist and neo-Marxist frameworks (see Bowles & Gintis, 1976; Barrera, 1979); internal colonial models (see Bonilla & Girling, 1973); LatCrit (see Arriola, 1998; Valdes, 1997, 1998); WhiteCrit (see Delgado & Sefancic, 1997); FemCrit (see Wing, 1997); AsianCrit (see Chang, 1993).

Solórzano and Yosso (2001) note that while each individual tenet of CRT is not ‘new’, synthesizing these tenets into a CRT framework in education is relatively recent. For instance, William Tate’s 1994 autobiographical article in the journal Urban Education—titled ‘From inner city to ivory tower: does my voice matter in the academy’—represents (to my knowledge) the first use of CRT principles in education. A year later, in 1995, Gloria Ladson-Billings and William Tate wrote a paper titled, ‘Toward a critical race theory of education’ in the Teachers College Record. Two years later, Daniel Solórzano’s 1997 essay on ‘Images and words that wound: critical race theory, racial stereotyping and teacher education’ in Teacher Education Quarterly applied CRT to a specific subfield of teacher education. Also in 1997, William Tate’s ‘Critical race theory and education: history, theory and implications’ in the Review of Research in Education furthered our understanding of the history of CRT in education. The field was expanded significantly with the 1998 ‘Special issue on critical race theory in education’ in the International Journal of Qualitative Studies in Education. The 1999 edited book on Race is—race isn’t: critical race theory and qualitative studies in education (Parker et al., 1999) was followed by individual scholars presenting on panels at professional conferences across the country and publishing their work in various journals. In 2002, the journals Qualitative Inquiry and Equity and Excellence in Education dedicated a special issue to CRT in education. In 2004, the American Education Research Association conference symposium ‘And we are still not saved: critical race theory in education ten years later’ acknowledged the ten year anniversary of Tate’s 1994 article introducing CRT officially to education.
As is consistent with the concept of community cultural wealth, this working definition demonstrates an accumulation of collaborative work. Thank you to Daniel G Solórzano who originally conceptualized cultural wealth. He shared with me a model in progress and later a collaboratively written piece (with Octavio Villalpando), and asked me to ‘run with it’. Since that time, cultural wealth has taken on multiple dimensions. I also acknowledge those personal and professional experiences, community histories and students’ research projects that have informed this work. I look forward to the ways that cultural wealth will take on new dimensions as others also ‘run with it’.

Thanks to Rebeca Burciaga, whose identification of linguistic and familial capital added important dimensions to cultural wealth.

Thanks to UCSB undergraduate students, Pablo Gallegos, Moises Garcia, Noel Gomez and Ray Hernandez, whose research conceptualizing graffiti and hip hop poetry as unacknowledged sources of community cultural wealth expanded my thinking about linguistic capital.

Chicana scholars note for example that in Spanish, *educación* holds dual meanings (Delgado-Gaitan, 1992, 1994, 2001; Elenes et al., 2001). A person can be formally educated with multiple advanced degrees, but may still be rude, ignorant, disrespectful or unethical (immoral)—*mal educada*. On the other hand, a person with only a second grade formal education may be *una persona bien educada* or a well-mannered, kind, fair-minded, respectful (moral) individual.

The book *Farewell to Manzanar* (Wakatsuki Houston & Houston, 1973) offers a first-hand account of some of the ways Japanese internees held onto hope, fostered caring, coping and responsibility, maintained skills of language, poetry, music, social networks and critical navigational skills, and challenged social and racial inequality.
I recognize that the notion of capital may be associated with capitalism, which is a system that is exploitative and has historically been an oppressive force against Communities of Color. The concept of schooling itself can be contradictory, given that schools have historically oppressed Students of Color, while still having the potential to be transformative places of empowerment. Similarly, as viewed through mainstream media, hip-hop’s contradictory nature offers an example of how historically some aspects of community cultural wealth are co-opted and utilized for exploitative purposes (see Spike Lee’s film Baboozled, 2000). Still, hip-hop maintains amazing potential to be a revolutionary art form and transformative cultural expression that can inspire and inform social movement. I believe community cultural wealth and forms of capital nurtured in the histories of People of Color holds the same potential.
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Who wants to hire a more diverse faculty?  
A conjoint analysis of faculty and student preferences for gender and racial/ethnic diversity

John M. Carey, Kevin R. Carman, Katherine P. Clayton, Yusaku Horiuchi, Mala Htun & Brittany Ortiz

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Who wants to hire a more diverse faculty? A conjoint analysis of faculty and student preferences for gender and racial/ethnic diversity*

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**ABSTRACT**

What explains the scarcity of women and under-represented minorities among university faculty relative to their share of Ph.D. recipients? Among many potential explanations, we focus on the “demand” side of faculty diversity. Using fully randomized conjoint analysis, we explore patterns of support for, and resistance to, the hiring of faculty candidates from different social groups at two large public universities in the U.S. We find that faculty are strongly supportive of diversity: holding other attributes of (hypothetical) candidates constant, for example, faculty at both universities are between 11 and 21 percentage points more likely to prefer a Hispanic, black, or Native American candidate to a white one. Furthermore, preferences for diversity in faculty hiring are stronger among faculty than among students. These results suggest that the primary reason for the lack of diversity among faculty is not a lack of desire to hire them, but the accumulation of implicit and institutionalized biases, and their related consequences, at later stages in the pipeline.

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1. Introduction

Since the civil rights movement of the 1950s and 1960s, major public and private institutions in the United States have attempted to promote diversity in education, employment, and positions of leadership. Universities introduced affirmative action in admissions and hiring; corporations created equal opportunity programs; and the federal government gave preferential treatment to women-owned or minority-owned contractors (Bowen and Bok 1998; Skrentny 2002; Dobbin 2009). As a result of these programs and initiatives, diversity values and discourse permeate across major institutions. Nevertheless, women and minorities continue to be underrepresented in positions in many areas relative to their presence in the population at large.

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One area still lacking diversity is university faculty. On many college campuses and academic fields, there continues to be a gap between the diversity of the student body and diversity among faculty, particularly in tenured positions at higher ranks (Finkelstein et al. 2016a). Numbers of women and under-represented minorities (URMs) on the faculty have grown, but the disparity persists. In 2013, for example, URMs and women made up only 10% and 38% of tenured faculty, respectively (Finkelstein et al. 2016b, 9). In response to rates of growth that lagged population trends, particularly among URMs, the most prominent consortium of student groups advocating for campus diversity demanded, as its top priority, that universities increase the representation of minority faculty (WeTheProtesters 2017).

What are the obstacles to greater inclusion of women and minorities in university faculty? Are gatekeepers—including deans, provosts, and hiring committees—biased against certain groups? Do women and minorities opt out of the tenure track? Do hostile climates preclude their advancement?

This paper considers a small—yet fundamental and underinvestigated—piece of the larger question of the reasons for the underrepresentation of women and minorities on university faculties. Specifically, we focus on the “demand” side of faculty diversity—support for, and resistance to, hiring women, racial/ethnic minorities, and gender non-conforming individuals. Which social groups value, and oppose, diversity hiring, and how much? Are people who identify as members of groups historically underrepresented among faculty—namely, women and racial/ethnic minorities—especially supportive of diversity in hiring? Do whites and men resist hiring minorities, women, and non-binary candidates more than members of other groups?

To examine these questions, we administered survey experiments to both faculty and students at two large public universities in the U.S., the University of New Mexico and the University of Nevada, Reno. We undertook fully randomized conjoint analysis, an approach recently proposed by Hainmueller et al. (2014). Conjoint analysis was used originally in marketing research to explore multidimensional preferences, but has since been developed and applied by political scientists to analyze attitudes toward politicians from different ethnic groups (Carlson 2015), views on men and women political candidates (Teele et al. 2017; Horiuchi et al., forthcoming), policies (Bechtel and Scheve 2013; Horiuchi et al. 2018b), and politicized or sensitive issues such as immigration (Hainmueller and Hopkins 2015) and discrimination (Caruso et al. 2009). This method is particularly suitable for our study as well, since we want to reduce social desirability bias and decompose the multidimensional nature of a holistic assessment of faculty candidates.

Our study’s novelty lies not only in its methods but also in its substance. Previous studies have examined students’ views toward diversity and affirmative action (Terenzini et al. 1996; Smith 1998; Sax and Arredondo 1999; Rankin and Reason 2005; Worthington et al. 2008; Park 2009; Park et al. 2013), while examinations of faculty’s attitudes toward affirmative action are less common (Park and Denson 2009; Williams and Ceci 2015). To our knowledge, ours is the first study to compare faculty and student attitudes toward diversity hiring using the same instrument.

Our analysis shows that faculty are uniformly supportive of gender and racial/ethnic diversity in faculty hiring, and that these results hold across various subgroups of study participants. Holding other attributes of (hypothetical) candidates constant, for example, faculty at both universities are between 11% and 21% points more likely to
prefer to hire a Native American, Hispanic, or black candidate to a white one. Faculty are between 6% and 11% points more likely to favor a woman candidate than a man at these universities, all else equal, and at both schools faculty are 6% points more likely to favor a gender non-binary candidate than a man. These results resemble other experimental studies showing a slight hiring preference for women among university faculty in a national sample (Williams and Ceci 2015).

We find that the biggest differences in hiring preferences exist between faculty and students: the former value diversity more than the latter. Indeed, the differences between students and faculty tend to be larger and more consistent than differences within students or faculty across racial/ethnic, gender, or socioeconomic class divisions.

Our findings thus present some challenge to the idea that preferences for diversity are associated primarily with salient social identities, and show that obstacles to faculty diversity cannot be attributed only to a lack of “demand” for hiring them. Accordingly, our analysis suggests that diversity advocates should focus on changes to the campus climate and on institutional reforms rather than prioritizing a change in faculty attitudes toward hiring candidates of particular social groups.

2. Theoretical background

Women and minorities have made inroads into higher education in recent decades. Between 1993 and 2013, numbers of women faculty more than doubled, compared to a 33% growth rate among men (Finkelstein et al. 2016, 67). During the same period, numbers of Asian and URM faculty grew by 171% and 143%, respectively, three times the rate of growth of white faculty (Finkelstein et al. 2016, 73). However, the structure of higher education changed at the same time, with public and private institutions coming to rely more and more on non-ladder faculty for their instructional needs. As a result, the majority of instructors in U.S. higher education today are contingent faculty, and women and minorities make up more than half of them. Tenured and tenure-track faculty are an increasingly scarce breed (Finkelstein et al. 2016, 95). Data from the National Center for Educational Statistics show that African-Americans, Hispanics, and Native Americans make up only 3.6%, 2.9%, and 0.3% of full professors working full-time in degree-granting higher educational institutions. The numbers for associate professors are 5.6%, 3.9%, and 0.4%, respectively, and for assistant professors, 6.3%, 4.3%, and 0.4%, respectively (Whittaker et al. 2015). Women’s – particularly white women’s – presence tends to be higher. Women make up 41% of tenured faculty overall, though only 26% of STEM faculty, according to the NSF survey of doctoral recipients (tabulated in Hart 2016).

There is a great deal of interest in creating conditions for more women and URMs to rise to senior academic ranks, particularly in fields where they are underrepresented. Indeed, research shows that having a professor who belongs to the same social identity group can increase student achievement and decrease gender or racial/ethnic achievement gaps. Carrell et al. (2010) capitalized on random assignment of students to professors and mandatory enrollment in introductory STEM courses at the Air Force Academy and showed that professor gender has a powerful impact on women students’ interest, participation, and performance in STEM fields. Fairlie et al. (2014) found that gaps in class dropout rates, pass rates, grades earned, course selection, course retention, and course
completion between white and URM students narrow substantially when students are taught by URM professors.

Understanding the causes of gender and racial/ethnic hierarchies in higher education is an important first step to solving this problem. There are many explanations for women and minority underrepresentation, particularly in STEM fields. In this section, we briefly summarize three categories of reasons, including bias, institutional climates, and a leaky pipeline.

2.1. Bias and discrimination

A growing range of studies show that implicit biases produce differential evaluations of the CVs, teaching performance, and tenure files of women and men (Steinpreis et al. 1999; Centra and Gaubatz 2000; Moss-Racusin et al. 2012; MacNell et al. 2015; Rosen 2018). Across multiple disciplines, women authors get cited less than men, controlling for other relevant variables (Maliniak et al. 2013; Ghiasi et al. 2015), and letters of recommendation tend to contain gender biases that put women at a disadvantage (Trix and Psenka 2003; Schmader et al. 2007). Other studies show that African-American scientists are 10% less likely to receive NIH grants than white applicants, holding other factors constant (Ginther et al. 2011).

In a recent Washington Post blog post that received over 1000 comments, one professor claims that white faculty on search committees do not hire minorities because “we do not want them” (Gasman 2016). Yet biases are less likely to manifest in outright racist or sexist behavior than in “everyday acts of incivility” that disproportionately target women and minorities. People harboring implicit biases are more likely to interrupt women and minorities, ignore them, deny them credit for their contributions, exclude them from events, and engage in other acts that appear neutral enough to escape the purview of formal grievance procedures, such as Title IX complaints (Cortina 2008). The accumulation of differential and uncivil treatment across multiple actors and over time manifests as a hostile institutional climate, which thwarts the advancement of URMs and women, as we describe below.

2.2. Institutional climates

Institutional climates are shaped by to the extent to which workers perceive they are recognized and valued, treated well, and enjoy opportunities for success. Studies across different academic contexts, however, show that women are more likely than men to report sexist and negative – more contentious, competitive, and disrespectful – workplace climates, as well as harassment, including sexual and gender harassment. These perceptions of climate are negatively related to job satisfaction, productivity, and influence over collective decisions (Settles et al. 2006, 2007; Williams et al. 2014; Sheridan et al. 2017).

Other features of academic climates may deter women and minorities from entering and slow their progress. For example, standards of productivity that emphasize obtaining large-dollar outside grants may contribute to the scarcity of women and African-Americans in basic science departments, especially in medical schools (Leboy and Madden 2012). Online job forums may tarnish reputations just as they are being formed. Wu (2017) used large-scale text analysis and found that discourse about women economists tended to be sexist, demeaning, unprofessional, and focused on women’s appearance
and personal traits, while discourse about men followed no systematic pattern. In academic departments perceived as hostile, women report having less access to professional networks, fewer mentors, fewer chances to collaborate with colleagues, and greater reluctance to express themselves, let alone report sexual harassment, for fear of retaliation (Gardner and Blackstone 2015).

2.3. Leaky pipeline

Bias, discrimination, and hostile climates help to explain why the academic pipeline leaks. According to a 2015 study, some 36% of a sample of URM Ph.D. candidates failed to complete their degrees (Sowell et al. 2015). Indeed, URMs make up a small share of Ph.D. recipients. In 2016, African-Americans and Latinos each comprised 7% of Ph.D. recipients, up from 6% and 7%, respectively, in 2006. Over this same period, native Americans made up less than 1% of Ph.D. recipients across all fields. Few URM Ph.D. recipients join academic professions, and then even fewer rise up the ranks.

Disproportionate service burdens – or “cultural taxation” – faced by URM faculty compared to their white colleagues is another factor that thins their numbers. Universities expect URM faculty to serve on diversity committees, act as mentors, and otherwise represent their social group on panels and at events. Their service helps the university look good, while the costs in research productivity are borne by the faculty member (Joseph and Hirshfield 2011; Shavers et al. 2014).

Though women make up around half of Ph.D. recipients, the gender system implies that women are more likely than men to juggle career demands and care work. Work-life conflicts contribute to women’s lower presence in tenure-track jobs and to their lower tenure rates (Xie and Shauman 1998; Wolfinger et al. 2008; Ceci and Williams 2011; Box-Steffensmeier et al. 2015), as well as the differential effects of allegedly gender-neutral tenure clock stoppage policies (Antecol et al. 2016). Combined with bias and climate problems, small differences in time availability and access to resources add up to produce big disparities in women and men’s advancement.

2.4. Our focus

Implicit bias, negative institutional climates, and leaky pipelines all combine to reduce numbers of women and particularly URMs in top faculty ranks. Our analysis is not designed to adjudicate these different causes. Nor do we touch upon the structural features of the U.S. economy and society that limit the pipeline’s intake of URM men and women, even as we acknowledge the importance of these factors, which include racialized inequalities in income and wealth, access to education, housing, and health care, and unequal treatment by public institutions. Instead, we want merely to assess the extent to which discriminatory individual attitudes and preferences are part of the problem. Does bias matter for hiring, or does bias mostly affect the everyday treatment and evaluation of work colleagues? As we describe below, faculty support hiring URMs and women for faculty jobs, which suggests that bias harms their prospects later in the pipeline, by contributing to “everyday acts of incivility,” exclusion, and hostile institutional climates. Students also support diversity in faculty recruitment, but their preferences are less pronounced than those among faculty, for reasons we speculate about later.
3. Research design

To examine whether the lack of faculty diversity is due to preferences against hiring women and URM faculty members, we undertook conjoint experiments at the University of New Mexico (UNM) and the University of Nevada, Reno (UNR). Our UNM surveys were distributed to faculty from 11 October to 31 October 2016, and to undergraduate students from 1 December 2016 to 1 February 2017. We had a total of 869 faculty respondents and 1386 student respondents, for response rates of 24% and 8%, respectively. At UNR, undergraduate students and faculty took surveys simultaneously, from 15 February to 14 March 2017. A total of 202 faculty and 621 students completed the survey, and our response rates were 19% for faculty and 7% for students.

In each experiment, we presented survey respondents with two profiles of hypothetical candidates to be hired as faculty members at UNM or UNR. Each profile included several attributes relevant to the hiring decision, the order of which was randomized across study participants (but constant for each participant to reduce cognitive strain). On each attribute, one “level” (or specific characteristic) was randomly selected from a predetermined set. For example, for “Race/Ethnicity” (an attribute), the level can be “white,” “black,” “Asian,” “Hispanic,” or “Native American.” Respondents were shown a series of paired profiles and, in each case, were asked to choose which candidate they would prefer to be hired at their university.

Figure 1 shows a sample conjoint table from UNM. The table includes all attributes used in the UNM surveys, and one randomly selected level per attribute for each candidate. With regard to demographic diversity, our main attributes of interest were race/ethnicity and gender, but respondents also weighed the importance of teaching record, research record, where a candidate received her or his graduate degree, whether the candidate’s spouse/partner was a current or potential faculty member, the candidate’s level of community engagement, and whether the candidate is a native of New Mexico.

Conjoint analysis is particularly suitable for our research, because faculty recruitment decisions are multidimensional and the conjoint survey format allows each respondent to select candidates according to her or his preferred combination of attributes. We carefully designed our research to reduce social desirability bias (e.g. Fisher 1993), which is a problem in eliciting honest opinions on socially sensitive issues, such as discrimination and exclusion. Specifically, we avoided priming our respondents to focus on any particular set of attributes or characteristics when selecting faculty candidates. Neither our invitations to participate in these experiments nor the instruments themselves ever mentioned diversity. Nor did we prompt respondents to focus on diversity-related attributes, such as race/ethnicity or gender. The invitations simply asked students and faculty to participate in a survey experiment on faculty recruitment, the criteria for which are important to participants for reasons that encompass far more than diversity concerns. Our respondents could focus on whichever of the attributes included in our experiments they found most salient. As mentioned earlier, we randomized the order of attributes in the profiles across respondents, so the position of the attributes (i.e. higher or lower in the table) did not affect respondents’ choices.

After indicating preferences on 8 (in the UNM study) or 10 (in the UNR study) paired profiles, study participants answered a series of questions about themselves. Faculty reported their gender identity, racial/ethnic identity, the school or department to which they belong, and their faculty position or rank. Students reported their expected year of
Which candidate do you think should be given priority in faculty recruitment? Even if you are not entirely sure, please indicate which of the two you would be most likely to choose.

<table>
<thead>
<tr>
<th></th>
<th>Candidate 1</th>
<th>Candidate 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heritage</td>
<td>U.S. Citizen</td>
<td>New Mexican</td>
</tr>
<tr>
<td>Gender</td>
<td>Woman</td>
<td>Man</td>
</tr>
<tr>
<td>Research Record</td>
<td>Excellent</td>
<td>Excellent</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td>Black or African American</td>
<td>Hispanic or Latino</td>
</tr>
<tr>
<td>Community Engagement/Service Record</td>
<td>Good</td>
<td>Good</td>
</tr>
<tr>
<td>Spouse/Partner is a Current or Potential Faculty Member</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Teaching Record</td>
<td>Fair</td>
<td>Excellent</td>
</tr>
<tr>
<td>Received PhD From</td>
<td>University of Georgia</td>
<td>Stanford University</td>
</tr>
</tbody>
</table>

If you had to choose between them, which of these two candidates should be given priority to be hired as a new faculty member at the University of New Mexico?

Figure 1. Sample conjoint table evaluated by survey respondents (UNM version).

graduation, main area of academic study, extracurricular interests, SAT score, high school class rank, gender identity, race/ethnicity, partisanship, legacy status/college status of their parents, and family income. We use some of these variables to compare whether the preferences for faculty diversity differ between different subgroups of study participants.

We interpret the results from our conjoint analysis by estimating the average marginal component effects, or AMCEs (Hainmueller et al. 2014). The AMCE tells us how much a respondent is more or less likely to choose a hypothetical candidate when a particular attribute-level is presented, compared to a baseline category, given all possible combinations of attribute-levels. We first show and compare the overall results at UNM and UNR. We then drill down to the within-institution comparisons across different groups of respondents by race/ethnicity and gender.

4. Results

Figure 2 shows the results for faculty respondents at UNM and UNR, focusing on key attributes of candidates that were shared across the instruments used at each institution. A positive (negative) AMCE indicates that respondents are more (less) likely to prefer
candidates with the given attribute-level relative to the baseline. The horizontal lines show the 95% confidence interval for each estimate. If a confidence interval intersects the vertical line on each figure, then the estimate is not discernible from zero at the 0.05 level.

The biggest factors that drive preferences in faculty recruitment reflect scholarly achievement. Teaching record and research record are the two most powerful attributes driving the likelihood that a participant in our experiment selects a given candidate for faculty appointment, a finding that holds among faculty and students and across gender, racial/ethnic identification, and the socioeconomic background of our participants. That said, diversity-related attributes consistently register as important to preferences as well.\textsuperscript{11} Beginning with the results among faculty, Figure 2 shows that faculty at both institutions are between 11% and 21% points more likely to prefer a Native American, Hispanic, or black candidate to a white one. UNM faculty are more than 10% points more likely to favor a woman candidate to a man, all else equal, and 5% points more likely to favor a gender non-binary candidate. At UNR, these preferences are slightly smaller, but are still positive and statistically significant.

Figure 3 shows that students at both universities exhibit positive preferences for faculty diversity as well, although these are not as pronounced as among faculty themselves. Specifically, students prefer a woman or a minority faculty candidate to a man or white one, but the magnitudes of these differences are less than 10% points. Their preferences for a non-binary candidate are not significantly different from their preferences for a man, other things equal. Students’ strongest preferences are for candidates with strong
teaching records. In particular, at both institutions, students value excellent teaching over all other attributes, and are 40% points more likely to prefer a candidate with an excellent teaching record over a candidate with a fair teaching record, all else equal.

Next, we turn to comparisons across groups of respondents within the faculty at each institution. We focus primarily on faculty preferences here because faculty drive the recruitment process. In a nutshell, faculty preferences are the demand side of faculty composition. To simplify the presentation of our results, which are based on the estimations with all attributes, we continue to present figures that focus on the AMCEs for the attributes reflecting gender and racial/ethnic diversity.

Figure 4 contrasts the preferences of non-Hispanic white vs. non-white faculty at UNM and UNR. The left panels show AMCEs for white respondents with respect to faculty candidates from each race/ethnicity category (against the baseline level, white) and from each gender category (against the baseline level, man). The middle panels show the corresponding AMCEs calculated for all non-white respondents. The right panels show the differences in AMCEs between white and non-white respondents. To highlight the results where group preferences differ, any estimate that is statistically significant at the 0.05 level is shown in black; otherwise, the estimates are shown in grey.

Within each institution, the differences in preferences between white and non-white faculty are negligible with regard to almost every diversity-related attribute. Starting with UNM, both white and non-white faculty show strong preferences for candidates from all non-white race/ethnicity categories relative to whites, and for both women and
non-binary candidates relative to men. The only statistically significant difference in preferences between the groups is on preference for Hispanic candidates (relative to the white baseline). But even here the difference is a matter of degree, not of kind. Non-Hispanic whites are 9% points more likely to select an Hispanic candidate than a white one, other things equal; non-whites are 15% points more likely to select an Hispanic candidate.

The number of responses at UNR is lower than at UNM, which limits statistical leverage, but every preference estimate runs in the same direction. Faculty respondents favor candidates from all non-white racial/ethnic categories relative to the white baseline, and except for Asian candidates (who are not underrepresented among faculty relative to their state population shares), those preferences are statistically discernible from zero. Similarly, with regard to gender, both groups prefer women and non-binary candidates to men, other things equal, and the estimated preferences are statistically significant among white faculty, from whom we have more responses. In no case are the preferences of white and non-white UNR faculty statistically different from each other.

**Figure 4.** Faculty preferences, white vs. non-white.
We get similar results when we break respondents out by gender. Figure 5 contrasts the preferences of men and women faculty at UNM and UNR. At each school, both men and women favor candidates from every non-white racial/ethnic group over white candidates, and favor women and non-binary candidates over men. In most cases, these preferences are statistically discernible from zero, but indistinguishable across genders. The exceptions are for women, who show measurably stronger positive preferences for women candidates (relative to men) and for black candidates (relative to whites) at both institutions, and for Native American candidates (relative to whites) at UNM. But here again, these are matters of degree, with men faculty members sharing each positive pro-diversity preference.

In the interest of space, we do not present the analogous breakdowns by race/ethnicity and gender among student participants in our experiments, but the overall patterns are consistent with those from faculty. White and non-white students, men and women, and those from high-income and low-income families, all exhibit pro-diversity preferences.

Figure 5. Faculty preferences, man vs. woman.
The preferences are generally more pronounced among traditionally underrepresented groups—that is, among non-whites, women, and low-income participants relative to whites, men, and those from wealthier families—but more often than not, the differences with respect to specific diversity-related characteristics are not statistically distinguishable.

Perhaps most importantly with regard to student preferences, we emphasize that the differences between faculty and student preferences are more pronounced than are differences across any groups within the faculty or students. Figure 6 shows the faculty/student comparisons at UNM and UNR, respectively. At both institutions, faculty members’ preferences for black, Hispanic, and Native American candidates are substantially larger than students’ (also favorable) preferences for the same groups. Among faculty, shifting a candidate from white to black, Hispanic, or Native American increases the probability that that candidate will be selected by about 11–21% points, all other attributes held equal. Among students, the analogous shifts are below 10% points. There are also significant

![Figure 6. Preferences between students and faculty respondents.](image-url)
differences between student and faculty preferences when it comes to gender. UNM faculty are more favorable toward woman and non-binary candidates than are UNM students, who favor women candidates moderately and are indifferent, on average, to non-binary candidates. At UNR, student and faculty preferences with regard to women are not statistically distinguishable, although faculty preferences are more positive on each level.

In summary, our research finds that faculty show strong preferences for racial/ethnic and gender diversity in faculty hiring. These results are shared across faculty from different social groups. Faculty preferences for diversity are stronger than those among students, and these differences are consistent across two large universities in different states. Differences in preferences between faculty and students in the aggregate are greater than differences among subgroups of faculty and students defined by race/ethnicity, gender, and class.

5. Discussion

The widespread nature of faculty support for diverse hiring suggests that preferences are not the primary reason for the underrepresentation of women and minorities. Student preferences for diversity, while positive, are less strong than those among faculty. What accounts for the difference in student and faculty hiring preferences? The two groups differ on many grounds, including age, education level, political beliefs, and generational cohort. Some faculty are old enough to remember the civil rights movement, the emergence of Second Wave feminism, protests against the Vietnam War, and other major historical events that pushed values of gender and racial/ethnic diversity into public prominence. Students, by contrast, came of age in the 9/11 era, when diversity discourse ran into the challenges posed by perceived threats of religious fundamentalism, terrorism, immigration, and globalization. Though young people in general tend to have more liberal views than older people, many students’ political views are consistent with skepticism toward diversity preferences in faculty hiring. What is more, faculty are less politically diverse than students. Recent studies confirm that conservative views are rare among faculty members (Abrams 2016a, 2016b; Shields and Dunn 2016).

There is another interpretation of our results that warrants further exploration. Large public research universities, many of which face significant budget constraints, tend to rely more heavily on Ph.D. students, adjunct instructors, and lecturers on contract than do private universities. This reliance on instruction by non-tenure-track faculty is often most pronounced in the largest courses, whereas more specialized courses are more likely to be taught by tenure-track faculty. As a result, there may be a disjuncture between the faculty that most students interact with on a daily basis and the tenure-track faculty that are the main targets of diversity hiring initiatives.

Across the natural sciences and engineering, as well as most of the social sciences, the presence of women and minorities tends to be greater among these teaching faculty – including contract and part-time instructors, as well as graduate students – than it is among tenure-track faculty (Harper et al. 2001; Trower and Chait 2002; Bettinger and Long 2005; West and Curtis 2006; Ginther and Kahn 2012; Gray 2015; Finkelstein et al. 2016a, 2016b). As a result, the “faculty” that undergraduates get to know in their classes may be more diverse than the ranks of tenure track faculty. If so, students may
regard the under-representation of women, non-binary, and non-white faculty as less pronounced than do the faculty themselves, which could translate into the less emphatic preferences for women and minority candidates among students than among faculty that we observed in our conjoint experiments.

6. Conclusion

Our study explores the extent of favoritism toward, and biases against, women and minority candidates for faculty positions among faculty and students at two large public research universities. We find that faculty are more likely to express preferences for hypothetical candidates who are women, black, Hispanic, and Native American. By contrast, students’ preferences for faculty from historically underrepresented groups, while positive, are not as strong.

Claims that faculty simply “do not want” women and minorities in their ranks are too simplistic. Our study shows that faculty do not harbor explicit preferences against members of certain groups; on the contrary, faculty actively prefer candidates from historically excluded groups, especially URMs. To be sure, we estimate preferences in the context of experiments, rather than in the socially embedded context of a search committee. In practice, search committee dynamics may change preferences and impede actual decisions that would produce job offers for URM candidates. For example, one large study revealed that the presence of more women on academic evaluation committees made gender stereotypes more salient and male committee members rated women candidates more harshly (Bagues et al. 2017). Another study showed that faculty on search committees counted women’s marital status, but not men’s, as a reason not to hire them (Rivera 2017).

Our data do not shed light on actual search committee dynamics, nor do they allow us to draw inferences about why faculty prefer diversity. For example, we do not know whether faculty want to hire diverse candidates out of a belief that they will personally benefit from an enriched intellectual environment or out of a desire to rectify historical exclusion and injustice. It is plausible that faculty have endorsed a “diversity bargain” (Warikoo 2016). They like diversity in principle, but do not behave in ways consistent with that belief. In particular, faculty resist modifying entrenched habits and curbing the self-interested behavior that the inclusion and recognition of diverse colleagues would actually require.

What types of policies and interventions can encourage behavior modification among faculty who believe they are committed to diversity? Unfortunately, Dobbin and Kalev’s large study shows that the policies and programs most commonly adopted to promote diversity in organizations – such as mandatory diversity training, job tests, performance evaluations, and grievance procedures – tend to result in fewer women and minorities making it into leadership positions. Rather than reducing bias, they may activate or trigger it. Managers do not like being told what to do, and they rebel against the intentions of such programs. By contrast, efforts to engage leaders in activities and hold them responsible for change are more successful (Dobbin et al. 2015; Dobbin and Kalev 2016).

Years of diversity efforts have increased expressed enthusiasm for hiring talented women and URM faculty, especially among faculty themselves. Advocates no longer need to make educating people about diversity a priority. Instead, advocates should engage faculty directly in activities that induce gradual behavior modification, promote
inclusion, and improve climates, such as mentoring programs, recruitment trips, bystander intervention workshops, and task forces (Ashburn-Nardo et al. 2008; Blau et al. 2010; Dobbin et al. 2015; Dobbin and Kalev 2016; Dennehy and Dasgupta 2017). Closing the representation gap involves efforts that focus on behavior, not beliefs.

Notes

1. We follow common practice by using the term URM to refer to historically underrepresented, domestic minority groups including African-Americans, Hispanics or Latinos, and Native Americans. The URM concept does not include Asian-Americans or non-resident aliens born abroad, even with African or Latin American origins.
2. We discuss how our research design is expected to mitigate social desirability bias in greater detail in Section 3.
4. For the context with demographic statistics on our cases, see Supplementary Materials A. For the comparison of our samples and populations, see Supplementary Materials B.
5. The survey experiments were reviewed and approved by Internal Review Boards at the University of New Mexico (Project ID 923657-2) and the University of Nevada (Project ID 969598-1).
6. An analogous table from the UNR conjoint can be found in the Supplementary Materials, Figure C.1.
7. There were some minor differences between the UNM and UNR surveys, driven by the characteristics and particular interests of each institution. The UNM instrument included an attribute for origin (New Mexican, U.S. citizen, or non-U.S. citizen) and one for community service record (Fair, Good, or Excellent), whereas UNR’s did not. UNR’s instrument included attributes for faculty rank, and for department or program, which were not included on the UNM survey. With the exception of teaching and research record, none of these attributes are formal hiring criteria. We selected these attributes for the purposes of our research.
8. We used the R package cjoint developed by Strezhnev et al. (2016).
9. Because of minor differences in the structures of the conjoint tables used at each institution, we are unable to pool the data from UNM and UNR. We cannot determine whether, for example, the AMCE for a black faculty candidate, relative to a white candidate, among UNM student respondents is statistically discernible from that among students at UNR.
10. Preferences across the full set of attributes and levels at each institution are included in the Supplementary Materials. See Figure C.2 for UNM respondents and Figure C.3 for UNR respondents.
11. The literature on implicit bias shows that judgments of scholarly achievement are affected by gender, race, and ethnicity. Though we distinguish analytically between research record, teaching record, gender, and race/ethnicity in our survey experiments, we acknowledge that these attributes are mutually constitutive in practice.
12. There are too few responses from faculty who self-identify off the gender binary to allow for statistical analysis.
13. Figures illustrating the group breakdowns among student participants are available in the Supplementary Materials. See Figures C.4 and C.5. The Supplementary Materials also provide more fine-grained breakdowns within both faculty and student populations, for example, between white and non-Hispanic white participants, or between whites and blacks.
14. In addition, recent studies find that the millennial generation has a different understanding of the concepts of “diversity” and “inclusion” than baby boomers and Gen Xers. They are less inclined to think of the diversity of visible social groups and more inclined to think of ideas, unique personal identities, and experiences (Smith and Turner 2015).
Research on sexual harassment and misconduct training similarly finds that, by increasing the salience of gender, the curriculum can reinforce traditional gender stereotypes (Tinkler 2012, 2013; Htun et al. 2018).

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**References**


How to Hold a Better Class Discussion

ADVICE GUIDE

By Jay Howard
It should have gone well. You crafted provocative discussion questions. You chose compelling and relevant texts. Yet your every attempt to get the students talking fell flat. Question after question was met with a silence that seemed to last hours.

Why the blank faces? Did the students fail to read the assignment? Was it the early hour? Perhaps you were the problem. Did you make interesting material seem dull? Did you misjudge what they would find engaging?

You have plenty of company. Most every college teacher has experienced that anxiety-producing moment when a promising class discussion fizzles out. It’s important for professors to use active-learning strategies (http://cte.rice.edu/blogarchive/2018/7/16/active-learning-has-become-a-buzz-word), but why does accomplishing that task sometimes feel so difficult?

Faculty members often assume it’s a matter of serendipity. The reality is that effective class discussions — much like effective lectures — are the result of careful planning. Students must do their part by coming to class ready to participate. But there are ways to increase the likelihood that they will be prepared, and to avoid the frustration of a sea of impassive faces.
Who is this guide for? Whether you are a new faculty member or a teaching veteran, if you’re looking for advice on how to hold a better class discussion, you’ll find it here in The Chronicle’s guide. You’ll learn how to structure your course and particular class sessions in ways that will get students actively participating — and will enhance their learning.

Jump to a Section

• Why Discussion Matters (#1)
• 7 Strategies to Change the Norms of Class Discussions (#2)
• How to Keep a Discussion on Track (#3)
• Common Challenges: Participation Grades, Bad Answers, and Divisive Topics (#4)
• Resources (#5)

Why Discussion Matters

Class discussion involves risk-taking — on the part of the students and the professor.

For students, there’s always the risk of embarrassment: *What if I raise my hand and I’m wrong? How will the professor and my classmates see me? Am I talking too much? If I haven’t finished the assigned reading, will speaking up expose my lack of preparation?* Many students will decide it’s safer to stay silent, and leave the floor to the handful of classmates who are eager to talk.

For you, as the instructor, opening up class for discussion means you risk losing at least some control over what happens. Your efforts may succeed wonderfully or lead to
tense and awkward moments. *What if their responses are all misleading or incorrect?* Worse, *what happens if a student makes a comment that is sexist, racist, homophobic, or otherwise offensive? Isn’t it safer just to stick to lecturing and keep control firmly in my own hands?*

Don’t let the uncertainties dissuade you. There are good reasons to engage students in class discussion. First, as studies have shown (https://www.tandfonline.com/doi/abs/10.1080/0363452090350936?), discussion leads to greater student learning and
the development of critical-thinking skills. If you had to summarize the findings of more than 30 years of research on teaching and learning in higher education (as Ernest T. Pascarella and Patrick T. Terenzini have handily [https://eric.ed.gov/?id=ED330287] done [https://www.amazon.com/How-College-Affects-Students-Research/dp/0787910449]), you could safely conclude that students learn more when they are actively engaged with the material, the instructor, and their classmates. Perhaps the most common way to engage them is via discussion.

In any college classroom, as Elizabeth F. Barkley wrote [https://www.amazon.com/Student-Engagement-Techniques-Handbook-College/dp/047028191X] in her 2010 teaching guide, the people doing the most work are also the ones doing the most learning. If you, the instructor, are doing the most work as you design and present a compelling lecture, you may be relearning a lot, or at least solidifying your understanding of the course material. However, it’s the students who should be learning the most in class, and so they need to be doing the most work.

Discussion is one strategy for shifting the work from instructor to students. Rather than being vessels into which you pour information, they become co-creators of knowledge and understanding.

Sometimes as novice learners, students are better able than the instructor to clear up confusion and identify next steps in logic or problem-solving. Because of your expertise, you might view those steps as so obvious that you don’t think...
about them anymore; they go without saying to you. Students have an easier time seeing the steps that an expert takes for granted and, as a result, can clarify them for one another. Your role is to guide them in the endeavor.

So how do you go about creating the kind of class discussion that will lead to greater learning?
7 Strategies to Change the Norms of Class Discussions

As a starting point, you must recognize that the college classroom is a social environment. Whenever humans get together, our behavior is guided by social norms — patterned and unspoken ways of interacting that are so ingrained they go unnoticed until someone violates them.

The college classroom is full of norms that guide student and faculty behavior. For instance, there’s a seating norm: Wherever students sit on the first day of class tends to be where they will sit for the entire course. Few faculty members assign seats or stipulate on the syllabus that students must sit in the same spot all semester. Yet they do. But imagine your surprise if, during the sixth week of the term, you arrived to find that they had all switched seats. You would suddenly become aware of this norm because students were violating it.
Likewise, student participation — or lack thereof — is influenced by two key classroom norms. First identified by sociologists in 1976, the two norms work together to keep most students from speaking up in class. As an instructor, you will have to take deliberate steps to counter both:

**Norm No. 1: Civil attention.** In a typical classroom, students aren’t required to “pay attention,” only to pay “civil attention.” What that means: So long as students appear to be listening, they can expect that the professor won’t call on them unless they signal a willingness to participate. How do students demonstrate civil attention? By nodding their heads, taking notes, chuckling at the instructor’s attempts at humor, or making brief eye contact. And by the things they don’t do: sleeping, texting, whispering to classmates. Students who are paying civil attention aren’t necessarily listening: They may, in fact, be daydreaming or deciding on their lunch plans. They may be writing a paper for another course when they appear to be taking notes. But by paying civil attention, students perceive that they have met their obligation to the course and to you, the instructor. Engage in discussion? They see that as optional.

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*Student participation — or lack thereof — is influenced by two key classroom norms.*
This norm also allows students to avoid accountability for failing to come to class prepared. Because they know that the instructor will not question them unless they volunteer, their silence may be hiding a lack of preparation.

Norm No. 2: Consolidation of responsibility. Regardless of class size, only a small number of students — typically five to eight — will account for 75 to 95 percent (https://www.jstor.org/stable/3211384?seq=1#page_scan_tab_contents) of the comments made in a discussion. It’s easy to be deceived into thinking that you helped facilitate a great discussion when, in reality, you had a great discussion with five students, while the majority were spectators. The “consolidation of responsibility” norm means that a few students assume responsibility for most of the discussion.

How to Disrupt Those Norms

The good news is that social norms can be changed. They exist only because we implicitly comply with them. Here are seven strategies you can use to change students’ behavior and disrupt the norms that get in the way of a good discussion.

No. 1: Ask better questions. That’s more complicated than it probably seems. Most faculty members know a poor question when we hear it. “Are there any questions?” is typically an ineffective way to start a productive discussion. Yes-or-no questions rarely lead to a thoughtful exchange. Asking
questions for which there is a single correct response may be a good way to check whether your students did the reading, but it's not an effective discussion starter.

A good question is one that allows for multiple perspectives. It shows that the topic can be viewed from a variety of angles, even though they may not all be equally relevant or helpful. Here are four ways to do that:

- Frame the question to inspire a range of answers. Don’t ask, “When did President Lincoln’s Emancipation Proclamation take effect?” — a question with a single correct answer. Instead, ask: “Why did Lincoln issue the Emancipation Proclamation in the fall of 1862 but make it effective on January 1, 1863? What explains the delay? What factors led to the choice of these dates?”

- Ask students to apply a variety of theories or perspectives to a particular example. In a criminology course you might ask, “We’ve covered five theories that offer explanations of why people commit crime. Take the case of Bernie Madoff, the financier convicted of running the largest Ponzi scheme and the largest financial fraud in U.S. history. Which of the five theories helps us understand a white-collar crime like this one? How does the theory help us make sense of Madoff’s crime?”

- Conversely, after illustrating a topic or concept, ask students to provide their own example: “We’ve just covered social-learning theory, and I provided you with an illustration. Give me a different example of someone learning new behaviors through observing and imitating
others. Where and when have you observed this in your experience?”

- Ask about process, not content. In some fields, like science and mathematics, there often is a single correct response. So instead of asking questions that seek the correct answer, ask about the process: “Here’s a new differential equation on the board. What is a good first step in solving this equation? Where do we begin?”

**No. 2: Set the stage on the first day.** Many faculty members spend the first day of class checking names against the class roster and going over the syllabus in hopes of clarifying expectations and procedures. The professor’s voice is the only one heard that day.

If you spend your first class session in that manner, you’re signaling that the norm in your course will be civil attention. If you try to change students’ expectations after, say, the first three weeks, they are likely to be surprised and may not adapt well. Instead, establish on the first day that you want them participating regularly in class — that civil attention will be insufficient. For more advice on how to teach a good first day of class, read this Chronicle guide.

(https://www.chronicle.com/interactives/advice-firstday)

**No. 3: Use a syllabus quiz to show that you value participation.** Rather than reading the syllabus to students on the first day, create a multiple-choice quiz of 10 to 20 questions on key elements of the syllabus. Divide the class into small groups (five to eight students in each) to work on the quiz. Afterward, ask the groups to provide the correct
answer to each question in turn, and check to see if further clarification is needed. The quiz sets the norm in your course: Student participation in discussion is required.

Ask the members of each group to exchange names and contact information. That helps to build a sense of community and gives students a peer-contact list should they miss class or have a question about the homework. In high-enrollment courses, small groups can make large classes feel smaller and safer. Students leave class on the first day understanding that you expect more than civil attention. (Read this Chronicle guide [https://www.chronicle.com/interactives/advice-syllabus](https://www.chronicle.com/interactives/advice-syllabus) for tips on how to craft an effective syllabus.)

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**No. 4: Try a discussion about discussion.** This is another effective first-day strategy. Some students, because they see taking part in a class discussion as optional, may be resentful of your expectation that they participate. They may even feel you are out to “catch” them unprepared for class and embarrass them publicly. Shy students, and those for whom English is a second language, may feel that you are making them unnecessarily anxious by requiring verbal participation.
Those perspectives, left unattended, can fester and lead to an unnecessarily hostile relationship between professor and student. A discussion about discussion can help everyone overcome those concerns. Try these steps:

- Ask students why they think you’re making participation in discussion an expectation (and perhaps a percentage of their grade).
- Inquire about their time in other courses that have made heavy use of discussion. Were those positive experiences? Why or why not? What made discussion helpful to them in other classes? When did a discussion seem unproductive?
- Then explain: Research demonstrates that when students participate in class discussion, it benefits them. Point out that most students will pursue careers that require them to work in teams. To be an effective team member, one must be able to engage in dialogue, learn from colleagues, and help deal with challenges as a group.
- Use this time to develop discussion guidelines for the class. You might adopt a civility guideline: “It is OK to challenge and refute ideas or positions, but not acceptable to attack someone personally or engage in name-calling.” Discuss the difference between unsubstantiated opinions and reasoned, supported arguments. When students participate in crafting the discussion “rules,” they are more likely to take ownership of their own involvement in those conversations.
No. 5: Don't give up on discussion in a large class. Even in the largest courses, instructors can build in brief periods for discussion. Try organizing students into teams, and have them sit with their teammates for the entire semester. I recommend randomly assigning students to groups, because self-selected groups of friends can easily get off topic. At multiple points during class, pose a question for team discussion. To ensure that the teams stay on topic, wander the room and eavesdrop on the debates. After a few minutes, randomly call on a few teams to offer their responses.

An online forum is a place where the in-class discussion can be continued or extended, allowing students with anxiety to contribute.

Create names for the teams. In a science course, for example, teams might be named after elements on the periodic table or famous physicists. This team-based approach gives students a small number of classmates whom they know and makes participating in discussion feel more comfortable and safe.

No. 6: Have students pair up. Try a classic assessment technique like think/pair/share (https://teachingcommons.stanford.edu/resources/learning/learning-activities/think-pair-share) to encourage
discussion: Pose a question or topic and give students a minute to write a response. They then pair off and share their responses.

Typically, you would next ask for volunteers to share their answers with the whole class. However, by asking for volunteers, you risk the consolidation-of-responsibility norm rearing its ugly head — that is, the same few students who regularly speak up will volunteer again. Instead, I suggest asking, “Whose partner had a brilliant insight? Whose partner really hit the nail on the head and summarized an important point? Call out your brilliant partner and let’s make them speak up.”

This approach is particularly helpful with those very bright, yet very shy students. The exercise means they’ve already had an opportunity to collect their thoughts and rehearse them with a partner. They are now being publicly affirmed for the quality of their comments, making it much less anxiety-provoking to speak up in front of everyone.

No. 7: Take the conversation online. You might have strong reservations about requiring students who suffer from severe anxiety to speak in class. But you can compromise: Try moving some of the discussion online.

It can be difficult to attain the same quality and depth of discussion online as in face-to-face settings, because of the tendency of many students to post no more than “Good point” or “I agree.” Nonetheless, an online forum is a place where the in-class discussion can be continued or extended,
allowing students with anxiety to contribute. If an online discussion proves fruitful, start the next class session by referencing some of the comments. That way you give reluctant public speakers some recognition for their online insights — and review the previous course material in the process.
How to Keep a Discussion on Track

So you’ve set the stage for a good discussion. Your students know that you expect participation, and they are ready (if not necessarily eager) to dive in. Now you face a different challenge: keeping the conversation focused, fair, and inviting for all students.

Some of the following suggestions are steps you can take during class. Others are things that you — and your students — can do ahead of time to encourage focused discussion and broad participation.

**Slow down the dominant talkers.** Classmates tend to have a love/hate relationship with the dominant talkers.

- On the one hand, the talkers are appreciated. When a question is posed, students know they can count on the dominant talkers to respond, which greatly decreases the likelihood that the professor will “cold call” those who are unwilling or unprepared to participate. In such moments, the nontalkers will sometimes physically adjust their
position to look at one or more of the dominant talkers, as if hoping they will speak on behalf of the class.

- On the other hand, students can be annoyed by those who talk too much or share too much tangential, personal information.

Dominant talkers are typically more extroverted and willing to process material aloud. They may wander around a topic, figuring out what they think as they speak. More-introverted students need to gather their thoughts before sharing them in class. If suddenly called upon to speak without having had the opportunity to process their thoughts, introverts may perceive the instructor as engaging in hostile behavior.

How can you slow down the dominant talkers and allow time for other students to process? The aforementioned think/pair/share technique is an obvious strategy, but there are many others. Some are as simple as saying, “Let’s hear from someone who hasn’t spoken up yet” or “I have heard a lot from the front of the room — now I want to know what those of you in the back are thinking.” That signals to the dominant talkers that it is time to allow others to join in.

- **Control the rhythm.** One way to ensure broad participation — not just reining in the dominant talkers but opening up the floor — is to limit who can speak, and how often. How you do that can be fun, not just restrictive. For example, try using:
- **Poker chips:** As students enter the classroom, they each pick up three poker chips. When they speak, they place a poker chip in a basket. Once they’ve used up their three chips, they may no longer contribute. To make sure everyone participates, require all students to use up their chips by the end of class.

- **Nerf balls:** Use an object like a Nerf ball to give students greater ownership of the discussion. Only the person holding the Nerf ball is allowed to speak. When the speaker finishes, he or she selects who goes next by tossing the ball to a classmate.

**Quizzes are good for more than just the syllabus.** Many professors use quizzes of one sort or another to make sure students do the reading. It’s an effective technique. Your challenge is to structure quizzes in a way that does not feel punitive yet results in students’ being well-prepared to discuss the material. Here are some ways to do that:

- When students arrive, provide a question on the board or screen tied to the assigned reading. Give them five or so minutes to write a response and then randomly call on students to share their thoughts. They can simply read their response or elaborate on it. Their comments become a starting point focusing the discussion on important ideas from the reading.

- A variation on that approach: Give students the question ahead of time and ask them to bring a response (from a paragraph to a page) to class and be ready to share it. Just-in-time (https://www.amazon.com/Just-Time-Teaching-
Blending-Technology/dp/0130850349) quizzes are another strategy. Ask students to complete a brief online quiz within the hour or two before class starts. The quiz can be a combination of multiple-choice and short-answer questions on key ideas or controversies from the reading. Grade the quizzes before class, and select some sample responses to share (without naming names) as a starting point for discussion. Depending upon the objectives of that day’s session and the nature of the material, you may want to provide examples of well-written responses. Then ask: What makes this a particularly strong response? Or provide examples of responses that illustrate common misunderstandings or errors in logic, while keeping the student anonymous. Open the discussion by saying, Here’s a good attempt that ended up going astray. Where and how did this response get off track? How could the writer have made it better?

Together, these approaches help students learn to identify the differences between a well-argued response that uses evidence from the reading versus one that is merely unsubstantiated opinion.

Use discussion questions to focus their reading (and the resulting debate). Hand out the questions in advance of a reading assignment. This is particularly helpful when the texts are difficult. As the students read, the questions help them identify key points, concepts, or controversies. Then during class, the questions become the basis for the day’s discussion.
Try to frame your reading questions in ways that might result in a more engaging discussion. For example:

- **Make them relevant to students’ lives.** Ask students to apply concepts from the reading to their lived experiences or to situations they may encounter in their careers.

- **Make the questions analytical in scope.** Ask students to summarize or critique an author’s argument, thereby pushing them beyond mere reading and into higher-order thinking skills.

- **Make sure they don't miss the big points.** Students often find it difficult, especially in their first year of college, to discern when a key idea or an important nuance is being communicated during a class discussion. Especially in the midst of a vigorous debate, students easily lose track of what they’re supposed to take away from the discussion. Among the ways to counter that tendency:
  - Sometimes the simplest strategies work best — like asking a student to repeat a key idea while you write it on the board.
  - When a student makes a crucial point, overtly emphasize it by saying, “That’s it. Did everyone hear what Omar just said?”
  - Summarize the discussion of one topic before moving on to the next. That can also help keep the discourse on track. “OK, we’ve had several key insights. LaShon noted that social-conflict theory pushes us to ask ‘who benefits from our health-care system.’ Katie countered that structural functionalism points out the need for multiple institutions to work collaboratively. Vince took us to the microlevel by
focusing on provider-patient interactions in the healthcare system. Now we’re ready to move on.”

Your goal here is to help make the learning more obvious. But in the process, you can also keep the discussion focused.

What do you want to see?

Do you have a topic you would like to see in our next advice guide? Email us (mailto:advice-ideas@chronicle.com), and let us know.

Shine a light on the “muddiest” point. A tried-and-true assessment technique, known as the “Muddiest Point (https://www.pdc.edu/wp-content/uploads/2012/02/Muddiest-Point-Assessment.pdf),” can help you clarify challenging concepts in a discussion and, at the same time, give reluctant talkers an additional opportunity to participate.

Here’s how it works: In the last few minutes of class, students write a brief summary of the topic or idea that they felt was the least clear in that day’s discussion. It is often helpful to directly ask them to summarize either the “muddiest” or the “most important” point. Collect their comments as they leave. Then, before the next class, review the responses to see which topics you should revisit.

The exercise gives you insights into any gaps between what you tried to emphasize and what students perceived as the most significant material discussed in class. For example, if
students focus on a colorful illustration but fail to recognize the concept being illustrated, you can recap the key points at the start of the next class meeting.

**Encourage comments from students of varied backgrounds.** The research on women’s participation in class discussion extends back to the 1970s, when the “chilly-climate thesis” first argued that a hostile environment meant that female students were called on less frequently and volunteered less often in class than their male counterparts. However, much of the evidence for that thesis was anecdotal. In recent decades, systematic research has found no consistent patterns regarding the relative participation rates of men and women in class discussion.

There’s been far less research on discussion participation by students of color. Most of the literature that does exist also leans toward the anecdotal, making generalizations difficult.

Nonetheless, in terms of what you should — and shouldn’t — do to encourage female and minority students to speak up in class, there are some guidelines:

- It should probably go without saying, but: Do not call on a woman or a person of color and ask that person to speak for all those in their particular demographic. It’s an unfair and impossible burden, and one person hardly represents an entire gender, race, or ethnicity. Of course, students from underrepresented backgrounds on your campus may have life experiences that are illuminating and different from the
majority. Invite sharing — just don’t treat a student as an authority who speaks for an entire class of people.

- Recognize that students from underrepresented groups may suffer from “impostor syndrome, (https://www.chronicle.com/article/How-to-Overcome-Impostor/244700)” doubting their own abilities and their deserving to be on campus. It might help to mention their previous comments, submitted papers, or online discussion posts when inviting their participation.

- Students who are the first in their families to go to college may also suffer from impostor syndrome. They may not have had spring-break trips to warm climates, parents with extensive professional networks, or childhood visits to museums. If you assume that all of your students shared such experiences, you are implicitly and unintentionally communicating that the ones who didn’t don’t belong. This attitude can show up in something as seemingly innocuous as the illustrations you use when introducing concepts. For example, a reference to certain kinds of ethnic food may leave students from rural or working-class backgrounds lost because they have never eaten such foods.

- While providing discussion questions ahead of time will benefit all students, it can be particularly helpful to students whose first language is not English.

- Ensure that at least some of the class discussion occurs in pairs or in small groups — it’s less stressful than commenting before the entire class.
Common Challenges: Participation
Grades, Bad Answers, Divisive Topics

Should You Grade Class Discussion?

Clearly, you can grade the quizzes or the short-essay responses that are part of your class discussion. But what about grading students’ participation in the actual dialogue itself? Knowing they will be graded certainly motivates students to speak up in class. But there are two schools of thought as to whether it’s a good idea:

- **The argument against:** Some students are painfully shy. To require them to speak in class is unkind and unreasonable, because of the severe anxiety that the expectation provokes. What’s more, it’s inherently unfair to judge the quality of students’ fleeting comments in the midst of a class discussion. The task becomes impossible as the number of students increases. The result is that extroverted students are rewarded for being extroverted rather than for the quality of their remarks, while introverted students are devalued.
The argument in favor: We ask students to do a variety of things that may make them uncomfortable. Some students find multiple-choice or essay exams stressful, yet we give those tests anyway. Other students struggle to be articulate in writing, but we still assign papers. We require students to read challenging and difficult texts even when they find the material discomfiting. Math-phobic students must complete quantitative-reasoning courses. Why? Because we as teachers believe that this will lead to greater learning. Sometimes being uncomfortable is necessary to facilitate learning. Why should we treat class discussion any differently?

The one thing we can agree on, whatever our position, is that grading class discussion is a highly subjective endeavor. It’s hard enough to track who speaks and how often, let alone assess the quality of the contributions.

But there is an alternative: Have students assess their own class participation. At the end of class, ask students to score their participation based on a rubric you’ve created. Alternatively, three or four times a semester, ask students to write a narrative assessment of their participation in class discussions, guided by a rubric. In the latter case, you can evaluate the narrative, indicate whether or not you agree, and offer advice on how to improve.
Self-assessment has two key advantages here. First, it relieves you of the burden of simultaneously managing a class discussion while attempting to note the frequency and quality of individual comments. Second, it pushes students to evaluate their contributions to their own learning.

What If a Student’s Remark Is Wrong or Misguided?

There was a time when some professors — at least in the movies (https://www.imdb.com/title/tt0070509/) — would publicly humiliate a student for an incorrect or ill-advised remark. Few academics would regard that as good teaching today (if many ever did). One harsh or unsympathetic response to an incorrect answer can shut down the willingness of the entire class to engage in discussion for the duration of the semester.

That said, when you structure a course to include regular class discussions, you open the way for students to give false or misleading responses. You don’t want those to be the ones other students remember from the discussion. Here are some useful strategies for dealing with such situations, without alienating your students.

**Affirm, then correct.** Some critics will see it as “hand-holding,” but if you want students to keep participating, it’s important to first affirm their contributions. You don’t want to discourage those who were anxious about responding yet took a risk and were wrong in what they said. So look for something you can reinforce in the student’s remark: “You
got the first step correct but then ran into a common misunderstanding,” or, “OK, that’s one strategy. But it’s not as effective as others. Who can help us identify another approach?”

But what if a student makes an ill-conceived argument and neglects to offer any evidence? Here, too, you can affirm the articulation of the position. Then invite the student or the rest of the class to critique it: “That summarizes the liberal [or conservative] viewpoint well, but let’s play devil’s advocate for a minute. If you wanted to rebut the position Josh just articulated, what evidence would you present?” That allows classmates to challenge Josh’s unsupported argument without appearing to attack Josh. You may even want to pose that question to the speaker himself: “Josh, assume for a moment that you believed the opposite. How would you challenge the argument you just made?” You’re not asking Josh to disagree with himself — you’re asking him to consider and articulate the counterarguments. This approach helps all of your students question their own assumptions.

**Be respectful when they’ve lost the plot.** On other occasions, a student’s comment isn’t necessarily wrong — it just seems out of left field. In these situations, I respectfully ask the student to make the connection between their comment and the topic we are discussing: “You’ve lost me. Sorry, I am slow on the pickup today. Explain the connection for me.” This shifts any “blame” away from the student and onto you as the
instructor. Often there is a connection between the topic and the student’s comment, only it is two or three unarticulated steps removed.

Another approach is to ask classmates to assist the student who is on the wrong track: “We’re not on that subject yet. It is easy to get off track here. Who can help us out and redirect us to finish what we were discussing?”

How to Handle News Events and Controversial Topics in Class

When should an instructor invite students to discuss recent news events, particularly controversial ones?

The college classroom should be a space where contemporary and controversial topics are open for debate. We should be modeling how to engage in civil dialogue, especially when people hold strongly differing views. So the fact that a topic is controversial is not a reason to exclude it from classroom discussion — assuming it’s relevant to your course content. In fact, such topics may be an ideal means of teaching students how to engage in reasoned dialogue, critique, and critical thinking.

Yet that sort of class discussion can go quite wrong if you’re not careful. As Noliwe M. Rooks wrote in a Chronicle essay on this topic:

“Revising a syllabus to include popular culture and current events is not always in the service of the course or in the best interest of students. Not all current events are easily
incorporated into every classroom, and it's all too easy for a professor inexperienced in handling sensitive topics to do more harm than good.”

Here are some guidelines to help you ensure that when you do bring current events into your class discussion, the dialogue turns productive rather than ugly:

**When to raise controversial issues.** Relevance is key. Discussion of the removal of Confederate statues from public places fits well in U.S.-history courses, for example. It’s much harder to make the argument that such discussion belongs in an organic-chemistry course. Likewise, discussion of the merits and drawbacks of the Electoral College are an obvious fit for political-science or sociology courses, but it’s a stretch to see how that could be relevant in business accounting.

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*The college classroom should be a space where contemporary and controversial topics are open for debate.*

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However, there are cases in which current events affect a particular campus to such a degree that students want to talk about it in class, whether or not the topic relates. If, for instance, your college faces a debate about changing the name of a building because the person for whom it was named turned out to have been an avowed racist, the consequent tensions can affect classrooms across the curriculum. In such situations, faculty members may see a
need to provide students with a forum to discuss the issue and the related tensions even if the topic is unrelated to the course.

In such circumstances, you need to be careful not to abuse your position of power in the classroom. It isn’t a platform to impose your view and ban all others. If you decide to take a political or moral stance, you must be clear that agreement or disagreement with that stance will not affect a student’s grade.

**Should you stake out a position?** There are differing schools of thought:

- One view is that faculty members should not only be open and honest about their political positions but also be advocates for social justice, offering evidence and a rationale. Inevitably, the argument goes, the classroom cannot be value-free. However, because a majority of college faculty members lean left politically, conservative students may feel that their views are unwelcome and may even perceive faculty members as hostile.

- Another approach is to not reveal your personal position on any issue. In this view, it is better to ask students to articulate the pro-and-con arguments while you serve as moderator of the discussion: *Why should the name of the building be changed? What are the arguments in favor? What is the counterargument? What values underlie each position? How is the issue viewed by people in differing social locations (e.g., race, gender, social class, geography)? Can we begin to understand how our identities and backgrounds...*
cause us to weigh some values more heavily than others in a given context?

Decide for yourself which is a better fit — both with your institution’s policies and with your teaching persona and pedagogy.

**Be clear about the ground rules.** Think back to my suggestion on holding a discussion about class discussion. Laying out the ground rules can be helpful. They give you a means to ensure that the discussion remains civil and is driven by reasoned argument and evidence rather than degenerating into name-calling or character assassination.

As the instructor, you can model kind-but-committed disagreement and show how to challenge someone’s misinformation or poor logic. Depersonalizing the discussion — moving from a debate between Monica’s and Manuel’s personal opinions to a critique of positions on the issue, weighing the evidence for and against, and considering the implications (intended and unintended) of various stances — can help keep the class discussion civil.

Ground rules are also helpful when a student — intentionally or unintentionally — makes a racist, sexist, or homophobic comment. Remind the class and the commenter of your ground rules, which prohibit attacks on individuals or unfair generalizations about categories of people. This is, of course, easier to manage when students don’t recognize how a comment would be perceived as offensive. Things get more complicated when the student is intentionally, perhaps even
proudly, sexist, racist, or homophobic. It might help if you explain the difference between secondhand anecdotes and systematic research. But you may have to rely on the agreed-upon ground rules precluding such comments in the classroom. Then change the subject.

**Ask students to take sides.** Yet another approach is to ask your class to “take sides” on an issue. Divide the students into small groups who hold similar views on the topic. Have them develop a list of arguments in support of their position and report back to the class. Then have the groups take the opposite position: Imagine you are an advocate for the other view. How would you challenge your initial position? Where are the weaknesses in your argument? They then report back again.

That way you are encouraging students both to sharpen their own stance and to see issues from another viewpoint. The group tactic can help soften some strident views.

**Resources**

Effective class discussions rarely occur by chance. They happen because (a) you’ve structured your course to ensure that they happen; and (b) you’ve established from Day 1 that students will be expected to take part in discussions. The
benefit of active participation for students is that they will learn more and develop the thinking skills that a higher education is supposed to facilitate.

Here’s a list of additional resources to help you improve your own discussions.

**Books**


- Jay R. Howard ([https://www.amazon.com/Discussion-College-Classroom-Students-Participating/dp/1118571355](https://www.amazon.com/Discussion-College-Classroom-Students-Participating/dp/1118571355)): *Discussion in the College Classroom: Getting Your Students Engaged and Participating in Person and Online*

- Multiple authors ([https://www.amazon.com/Just-Time-Teaching-Blending-Technology/dp/0130850349](https://www.amazon.com/Just-Time-Teaching-Blending-Technology/dp/0130850349)): *Just-In-Time-Teaching: Blending Active Learning With Web Technology*

**Journal Articles**

You might have to hunt down the first one in print, but the
second is online. Both are worth reading:


- “Student Participation in the College Classroom: An Extended Multidisciplinary Literature Review,” published (https://pdfs.semanticscholar.org/8c77/40860ea46aa9c76077b524a417677d00f451.pdf) in *Communication Education* in 2010 and written by Kelly A. Rocca

**Advice and Opinion Columns**


- A 2019 article (https://www.facultyfocus.com/articles/teaching-and-learning/bad-questions-prompts/) from Faculty Focus: “‘Everybody With Me?’ and Other Not-so-Useful Questions”


- Advice (http://crlt.umich.edu/publinks/respondingtobias) from the University of Michigan’s Center for Research on Learning and Teaching: “Guidelines for Discussing Incidents of Hate, Bias, and Discrimination”

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us/Discussion+in+the+College+Classroom%3A+Getting+Your+Students+Engaged+and+Participating+in+Person+and+Online-p-9781118571354) is Discussion In the College Classroom: Getting Your Students Engaged and Participating in Person and Online (Wiley, 2015). You can reach him by email at jrhoward@butler.edu (mailto:jrhoward@butler.edu) and follow him on Twitter @JayRHoward (https://twitter.com/jayrhoward).

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