Teaching & Learning
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The Joy Shechtman Mankoff Center for Teaching & Learning

2016-2017

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- Teaching Across Borders

Joy Shechtman Mankoff Center for Teaching & Learning
Connecticut College

Joy Shechtman Mankoff Center for Teaching & Learning 2015-2016

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Professors Ron Flores (left) and Larry Vogel (right) host a REF event in Coffee Grounds.

Connecticut College

› Letter from the Director

When I first learned that "Connections" would be the name for our newly revised curriculum, I thought: very *"pun-ny," very clever.* However, over the past few semesters of the CTL's working closely with colleagues who are shaping and refining our new curriculum, I have come to better understand that "Connections" is more than a clever name.

We all know that the components of our new curriculum are rich in connections—our team-advised First-Year Seminars that connect students, faculty, and staff; our "Conncourses" that engage students (and faculty) by asking them to connect disciplinary ideas to the liberal arts (and the greater world) in general; our Pathways, that demands that students make connections across the disciplines using different modes of inquiry, incorporating what students learn their to global and local experiences. Framed by the principle of Full Participation, our Connections Curriculum asks students to continually make connections: between their majors and their general education; among themselves, other students, and members of our community; and surrounding their own identities and what it means to be liberally educated in our larger global society.

Another goal of Connections is to intentionally link *all* students to the most impactful parts of our curriculum—the best educational experiences that Connecticut College has to offer. The Wabash National Study revealed that most colleges and universities offer not one but multiple different educations: some students get a lot of the best experiences (examples of these on our campus: undertaking independent research with a faculty member; study away; leadership in a club or organization; community learning; an integrative capstone experience like those offered by our academic centers), while others get relatively few. Connections requires that all of our students—not only the highest achieving or most ambitious—engage in the elements that make up the best of a Connecticut College education.

Yes, those curricular connections are all there. But importantly, "Connections" also describes the interpersonal relationships our revised curriculum allows students, faculty, and staff to create: between the members of the FYS advising team and our new students; within the Pathways when students ap-

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The Joy Shechtman Mankoff Center for Teaching & Learning at Connecticut College promotes effective teaching that cultivates engaged student learning. The Center fosters a campus culture that values a diversity of learning, teaching, and disciplinary styles; encourages honest discussion of teaching and learning; and cultivates intentional, evidence- informed teaching.

To achieve its mission, the Joy Shechtman Mankoff Center for Teaching & Learning:

- **Organizes programming that facilitates the exchange of ideas about teaching and learning.**
- **Seeks to cultivate a culture of critically self-reflective, evidence-informed decision making related to teaching and course design, and the creation of curricula and allocation of resources in the service of improving student learning.**
- **Offers resources and support for early-career faculty, including programs that promote their smooth transition into the community and their success in the areas of teaching, scholarship, and service.**
- **Helps create both informal and formal sources of support for faculty members at all career stages, especially related to teaching and learning.**
- **Collaborates closely with the Office of the Dean of the Faculty, Institutional Research, Information Services and Instructional Technology, and academic departments and programs in joint endeavors in support of faculty careers, teaching, and learning.**
- **Engages in efforts to improve teaching and learning at small liberal arts colleges at the regional and national levels.**

Appearing Previously

Updates From Our Winter 2014 Issue

Interdisciplinary Dialogue in AHI/ES 361: Environmental Art & Its Ethics

In 2013, I reported on the results of an interdisciplinary experiment in a new course, AHI/ES 361: *Environmental Art and Its Ethics*. Reflecting on the course at that time, I observed that the course had attracted students of diverse disciplinary backgrounds, which generated lively and productive dialogue. Also, field trips and in-class activities helped students develop a common language for talking about environmental art.

In Fall 2015, I taught the course for the second time. I am happy to report that cross-disciplinary conversation and course activities again contributed to students' engagement in interdisciplinary work. Students reported that speaking across disciplinary boundaries, both in class and during out-of-class activities like a field trip and a public mini-conference, helped them to expand their understanding of art, become more tolerant of avant-garde practices, and recognize how art-making is bound up in social and political issues.

In addition, teaching these two iterations of the course yielded an unexpected result. I found that directly engaging in interdisciplinary conversation in this class strengthened students' understanding of *disciplinary* ways of thinking central to the field of art history. This outcome might seem paradoxical. By pointing to the intersectionality of art, however, the multiple, cross-cutting discourses of the class illuminated how art historical frameworks for asking questions might generate results different from other disciplinary approaches. In this way, interdisciplinary work showed students the unique contributions of art historical methodologies to environmental issues.

— Karen Gonzalez Rice, Sue and Eugene Mercy Assistant Professor of Art History

Students from AHI / ES 361, Environmental Art and Its Ethics, visit iPark in September 2015; Professor Gonzalez Rice is standing at the far right.

Team Advising

In this inaugural year of team advising, the partnership strategies have been as diverse as the faculty, staff, and student teams. Nicole Ceil (CELS) and Tobias Myers (Classics) have taken a distinctive classroom-centered approach, which Nicole describes below.

At first, I asked myself how I was going to be a team advisor apart from being a Career advisor. It can be very difficult for first-year students to work with someone who will be advising them about the rest of their lives – they are just starting college. So, I started with *Whistling Vivaldi* – that was the

Professor Tobias Myers (left) & Assistant Director Nicole Ceil (right)

first major intellectual conversation we had in the seminar. Tobias invited me into the classroom and the conversation, which brought up all of these tremendous and important ideas that would affect them for the rest of their lives.

The students' learning became the foundation of our relationship. They could tell that I was just as interested in their learning as they were. That became the foundation of our relationship. And I had the privilege of attending 75% of the FYS classes. This was invaluable for me, but I want to emphasize that it isn't feasible for all staff members—it can be very difficult to negotiate time or to find space for yourself in a classroom.

As a CELS counselor, I also benefited from the Career workshops, which were part of the FYS program. During orientation, our first workshop taught students to self-assess—to think about what they were passionate about, what engaged them, what empowered them—and then to weave that through their classroom learning and their leadership on campus, making it part of their internship and job searches.

Even so, my identity as a Career adviser didn't make the relationship-building process easy or simple. I think it took over half the semester for students to feel comfortable saying "Hi" to me on campus. That "easing in" phase exists for everyone, I think.

In the spring semester, I didn't have the same contact with my seminar students. So I sent e-mails and encouraged them to come by my office, to stay in touch, and I followed-through on each of these contacts.

— Nicole Ceil, Assistant Director and Adviser, Office of Career and Professional Development

Teaching & Learning from a Broader Perspective

When I first arrived at Connecticut College, I was a bit skeptical that the Center for Teaching & Learning would have much to offer me. I had been teaching physics at liberal arts colleges for four years. Surely, I thought, I was a seasoned hand at conveying the facts and principles of physics in a small, intimate classroom setting. What could be the benefit of the monthly meetings of the Class of '57 Teaching Seminar for Incoming Faculty that I was asked to attend?

I quickly realized there was more that I had to learn. During a syllabus workshop, I was encouraged to step back from specific topics and to look at the course as a whole. I had a good sense of the material I wanted to cover and how best to explain it, but I had not thought—as much—about how to teach this material so students would appreciate its relevance and connect it to their everyday experiences.

I took this broader perspective to heart when I was designing my introductory physics syllabus. The great majority of students in this course were on a pre-health track; many viewed my class as a hoop to jump through and most would probably never take another physics course. Faced with this audience, I asked myself tough questions. What did I want my students to be thinking about as they studied? How could I encourage them to connect the notoriously abstract material of basic physics (electricity, magnetism, quantum mechanics, and nuclear physics) to the effects it has had on the world around them?

My solution was to ask students, on the first day, to identify (from a photograph) the name, location, and historical significance of Henry Moore's "Nuclear Energy." This piece of public art stands on the site of the first artificial nuclear chain reaction. The assignment encouraged students, from Day One, to understand how our knowledge of physics has changed the world in fundamental ways and how society has reacted to those changes. And the assignment succeeded in setting this frame for the course, eliciting student responses that were thoughtful and insightful.

As the semester progressed, I continued to highlight the broader impacts of our course material. We considered how electrical forces dictate the behavior of molecules, how Faraday's Law allows for the large-scale generation and distribution of electrical power, and how transistors, computers, and the Internet would not be possible without an understanding of the laws of quantum mechanics.

Thanks to the CTL Class of '57 Teaching Seminar, I am much more cognizant of the benefits of drawing connections to other fields. By highlighting how my discipline connects to material and subjects already familiar to my students, I increase their engagement with my course. I hope to emphasize this broader perspective on physics as I continue at Connecticut College, both in the traditional courses (such as Experimental Physics, and Modern Physics) and in any new courses that I might develop as part of Conn's ongoing curricular revision.

Nuclear Energy (1967), by Henry Moore

By highlighting how my discipline connects to material and subjects already familiar to my students, I increase their engagement with my course.

—Michael Seifert

Michael Seifert is an assistant professor of physics. His research is centered on Lorentz symmetry, the symmetry between space and time revealed by Einstein's theory of special relativity. He is also interested in how physics intersects with philosophy and with music.

Featured Assignments 2016

Featured Assignments is a CTL initiative that recognizes excellent assignments our faculty have created for their classes. In this second round of competition, members of the CTL Advisory Board selected four assignments to be honored as Featured Assignments. Each assignment was evaluated based on a series of criteria, including originality; and the degree to which the assignment made course material relevant to students' lives, stimulated creativity and critical thinking, and encouraged students to apply knowledge and relate to real-world experiences. Below is a brief description of each assignment and why the Advisory Board selected it. For the complete assignments, please see the CTL website.

Theoretical and Methodological Paper Series

Ana Campos-Holland, Sociology 103: Introduction to Sociology

Professor Campos-Holland has developed a series of papers designed to introduce students to theoretical perspectives and methodological approaches in the social sciences. Each paper addresses different course objectives and creates opportunities for students to exercise their creativity and intellectual freedom by selecting topics of interest. Past topics have ranged from Miley Cyrus's self-presentation on social media to the legalization of marijuana. Students especially enjoy the creative aspect and freedom of choice.

CTL Advisory Board members thought the paper descriptions were very thorough, clearly defining each component. They also commended Professor Campos-Holland for having very high expectations for students in a 100-level course. The assignment is an excellent example of how one might teach writing in the discipline and scaffold an assignment across the entire course.

Data Analysis Project

Priya Kohli, Mathematics 207: Advanced Regression Techniques

In this assignment, students collaborate to work in teams on a dataset which is of interest to them and apply various regression techniques to explore the implications of these methods on real data. Students must pose specific questions in their analyses and they perform the overall work in hierarchical steps. Each group applies what they have learned in the previous step to their next analysis. The major goal of this semester-long assignment is to make learning a two-way procedure, with faculty-led lectures followed by opportunities for students to apply what they have learned to a real-world problem. In this way, students have a chance to "own" the subject material.

Advisory Board members thought this was a great way to make learning statistical techniques more engaging and meaningful for students, who apply the methods to a dataset in their own area of interest. Professor Kohli reports that students rise to the challenge and work hard to find meaningful results in the context of real-life applications.

Wiki Assignment

Darryl Phillips, Classics 101/History 108: Greece

Students in Professor Phillips' class work collaboratively to create a Wiki page that documents major concepts and terms as they are introduced throughout the semester. The result is a comprehensive study guide that students can consult throughout the course. Professor Phillips states that the assignment helps students gain a better working knowledge of the material, which allows them to reach a higher level of engagement during class discussions and in their papers.

The Advisory Board commended the assignment for its clear and well-stated guidelines. They commented that this is a creative, alternative approach to using technology. And because students can use the Wiki page for studying, they will be motivated to produce a high quality product.

The Final Four

Peter Siver, Environmental Studies 110: Environmental Studies as a Natural Science

Students in Professor Siver's class debate and discuss environmental issues, advancing through a tournament bracket. Small groups of students are assigned one of 16 environmental issues to research. Then, they debate another group to determine which issue is more important. To win the bracket, a group must convince others that their issue is more important. As environmental issues are eliminated, groups merge to tackle the next set of environmental issues. The first two rounds are done outside of class, and the last two rounds (the final four) are done in class, with each group giving a presentation. After each round, students write a paper that examines the issues.

Advisory Board members thought this was a very creative assignment that motivated students through competition. The Board members also liked the connection to real-world issues. Professor Siver commented that the assignment gives students significant experience in integrating and balancing all sides of an issue, and pushes them to make decisions based on evidence.

—Anne Bernhard

Anne Bernhard is a professor of biology and the CTL faculty fellow. Her research focuses on the microbial ecology of estuaries and salt marshes, and is funded by the Gulf of Mexico Research Initiative.

From Theory to Practice

The Liberal Arts in Action

Reflections on Michael S. Roth's *Beyond the University: Why Liberal Education Matters*

Surveying educational philosophers such as Jane Addams, John Dewey, Ralph Waldo Emerson, W.E.B. Du Bois, and many others, Michael S. Roth, the president of Wesleyan University, argues for the historical and present relevance of a liberal arts education. In response, Jefferson Singer, Dean of the College, considers the intellectual debts and contributions of Connections.

In the World…

Roth maintains that the liberal arts offer a "captious practicality," a nimbleness of mind well suited to the needs of our rapidly changing society and economy. By testing our ideas in the real world, we gain a better purchase on what justice means, what equality means. That is really John Dewey's argument, and that is what Roth means by the phrase, "practical idealism."

Relationship…

When you act on ideas, you act in relationship to the world. There will be response, and there will be reaction, and there will be implications. Relationship involves empathy and interaction and the recognition that what you do affects others. What you think affects others. There is no such thing as a disinterested idea.

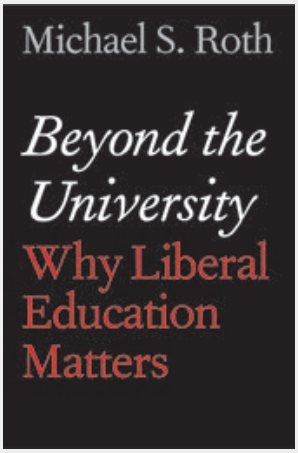
Balance…

Liberal arts education has been able to thrive, in part, because we've allowed it to be buffered from some of the messiness of the world. Emphasizing a linkage to the practical world could pull thinkers too far into the field, making the academy subject to political pressures and partisan movements, which might take away some of that freedom. That's the risk: That we could become so oriented to the world that we lose the opportunity to reflect. There has to be a balance.

Connections…

The educational philosophy that we are now endorsing at Connecticut College is that of a pragmatic liberal arts education. We say to our students, "Define a particular problem or challenge or question. Allow your interest to be informed by the knowledge and methodologies of the liberal arts. And then take the tentative understanding that you begin to develop and engage in off-campus activity. This will allow you to see the question and the thinking you have been doing about that question in the context of the world. And then take back, from that off-campus experience, a greater contextual understanding that leads to deeper reflection and communication about what you have learned. We hope that this process prepares you with a way of approaching the series of questions and problems which will define your life professionally and as a member of communities for the rest of your life."

Those are the four principles of Connections: ownership, integration, engagement, and reflection.



Collaborative Learning…

This has been at the heart of everything I've done as a teacher and researcher. Throughout my work at the College, my courses have always had a community learning component. My work has always straddled the world outside the academy, whether as a clinical psychologist, as the director of the Holleran Center, as a mentor to Posse Scholars. My process for deepening my understanding of psychology, of identity, has always relied on having a part of my understanding and experience be outside the academic world.

I'm not saying that is the only way of being an academic. But this marriage of ideas and interest, of ideas and emotions, has made the most sense to me in the context of work that is not wholly in the abstract or theoretical realm. It's a commitment.

I want to work this commitment more into the four principles. It's a commitment to collaborative learning. That's where the concept of relationship resides. It comes back to the point that our best learning is in relationship with others who share the same passionate concerns and mutual commitments.

— Jefferson Singer

Jefferson A. Singer is the Dean of the College and the Elizabeth H. Faulk Professor of Psychology. A recipient of the Nancy Batson Nisbet Rash Research Award, he is a prolific author and presenter in the field of clinical psychology. As Dean of the College, he is coordinating the implementation of the Connections program.

Engaging the Data

Capstone Experiences in the Class of 2015

How many of our students complete senior capstone work of one kind or another? Are some kinds of capstones better than others? The accompanying chart shows results from the Class of 2015 Senior Survey, which had a response rate of about 91%. Regarding capstones, we asked the following question: "A 'capstone' is a significant culminating project, performance, paper, or presentation done in the senior year that draws together what the student has learned or done in a particular field. Please check each of the following types of capstone projects you completed this year at Connecticut College (for your major, minor, certificate program, etc.)."

This was a "check all that apply" question, and 46% of respondents reported completing two or more capstone experiences. Rounding out the picture, 41% reported one capstone experience and the remaining respondents (approximately 12%) reported having none. As shown in the figure, the most common form of capstone experience was a research assignment in a 400-level course (79%), followed at some distance by an individual study with a professor (40%).

Why does this information matter? First, the integrative-pathways legislation passed in May 2015 notes that "[e]ach Pathway will provide an opportunity during the fall of the senior year for students to reflect on the different elements of their Pathway, in the context of their overall undergraduate experience." This act of integration and reflection is in keeping with the goals of Connections, which include challenging students to "to see interdisciplinary connections and expand their integrative and problem-solving capacities;" to cultivate "a more nuanced understanding of where their studies within a particular disciplinary major fit within a larger intellectual and social context;" and to strengthen "their reflective capacity to step back from their studies and global/local community engagement, and apply a critical and ethically informed lens to all that they are learning." A capstone allows a student to realize each of these goals.

The way in which we have structured our Connections curriculum leads naturally to what the American Association of Colleges & Universities (AAC&U) refers to as "Signature Work," which provides students with the opportunity "to integrate and apply their learning to a significant project completed across a semester of study or longer." These "can be pursued in a research project, in a capstone experience, in thematically linked courses, in a practicum, or in service learning settings. Signature Work will always include substantial writing, reflection on learning, and visible results."

"Integrative" learning is both broad and deep; it stretches across the curriculum and requires careful thought on the part on the student. As the AAC&U/Carnegie Foundation "Statement on Integrative Learning" notes, "Integrative learning comes in many varieties: connecting skills and knowledge from multiple sources and experiences; applying theory to practice in various settings; utilizing diverse and even contradictory points of view; and, understanding issues and positions contextually. Significant knowledge within individual disciplines serves as the foundation, but integrative learning goes beyond academic boundaries." Here again, there is a strong resonance with the Connections: This definition applies to the entire pathway, as well as the culminating capstone experience.

Recently, Connecticut College was chosen to be one of eight schools to participate in a grant, "Capstones & Signa-

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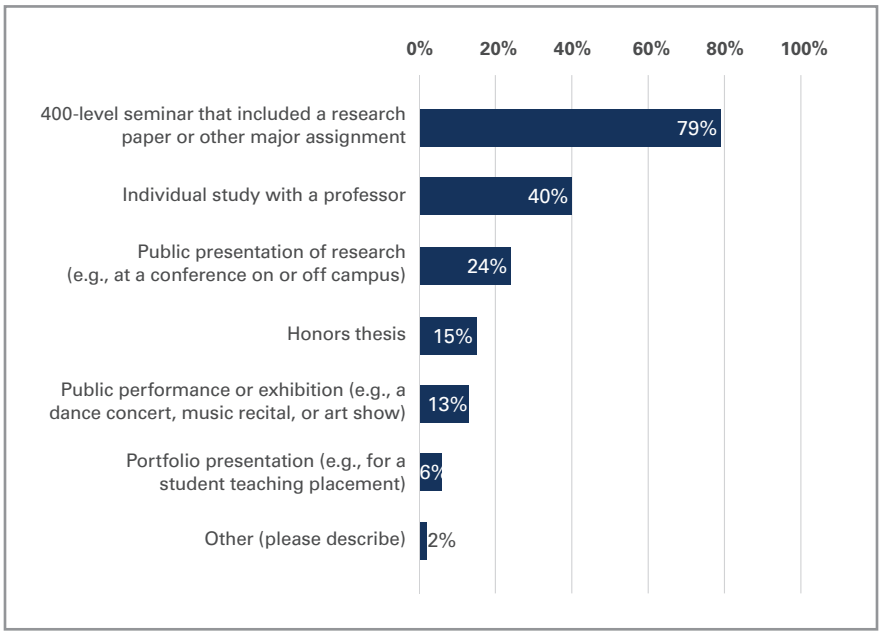

FIG. 1. Percentage of Class of 2015 graduates doing various capstone experiences (respondents could check all that apply)

John Nugent is the Director of Institutional Research and has contributed extensively to College self-studies and analyses. His disciplinary expertise in political science focuses on questions of public policy at the intersection of state and national politics. He is the author of *Safeguarding Federalism: How States Protect Their Interests in National Policymaking* (University of Oklahoma Press, 2009).

Talking Teaching

Connecting with Connections

The CTL's Talking Teaching is a series of six to eight conversations each semester, which discuss emerging ideas and issues in teaching & learning. In the past few years, many discussions have centered on the Curricular reVision process, and this year the focus has been on the resulting Connections Program.

As the Connections Program transitions from a series of plans to concrete, and profound, curricular changes, Talking Teaching discussions have been bringing its leaders together with members of the wider campus community. Sessions have been devoted to teaching first year students, full participation, Integrated Pathways, ConnCourses, global learning, and capstone projects. What changes are taking place, what strategies are being implemented to bring about change, and what challenges and obstacles still need to be overcome have all been considered.

Focusing on the Connections Program has also had an impact on how we have organized the Talking Teaching discussions. In previous years, Talking Teaching examined classroom and course innovations, and were attended mostly by faculty. One of the most important features of the Connections Program is the coordinated efforts of staff, faculty and students, a collaborative approach that has emerged in each of our discussions this semester. This wider range of perspectives has meant that attendees are able to hear more and different perspectives about the curricular reforms and innovations. During a session devoted to full participation and understanding student needs, for example, students offered enlightened thoughts on what full participation meant to them.

The Talking Teaching conversations are revealing that we are well on our way to successful revision, but ultimate success will require community members to become more deeply involved. A critical first step is learning how to become involved, for example, by contributing to a pathway, creating a ConnCourse, or incorporating full participation or global learning into current courses. Talking Teaching events have strived to help campus community members make their own personal connection with the Connections Program.

Ultimately, widespread curricular reform requires leadership, creativity, and a great deal of learning and adaptation. Success is contingent on constant dialogue about effective practices. This information sharing is aimed at educating community members, inspiring them, and convincing them that it is worthwhile to contribute. We hope that this semester's Talking Teaching discussions have played a part in achieving these goals.

We are already planning next year's discussions, drawing on the suggestions of this year's participants. If you have recommendations for Talking Teaching, please contact us.

— David Chavanne & Ruth Grahn
Talking Teaching Coordinators

David Chavanne is an assistant professor of economics, whose research and teaching focus on finance, behavioral economics, and economics and morality. Using experiments and surveys, his work takes an interdisciplinary approach to studying decision making, drawing connections among economics, law, and psychology.

Ruth Grahn is an associate professor of psychology and chair of the psychology department. A behavioral neuroscientist, she investigates the mechanisms by which neural activity mediates anxiety. She is deeply engaged in doing research with students and has made a number of presentations with them in the fields of psychology and neuroscience.

The Digital Divide at Connecticut College

Recognizing the Divide

I was recently surprised by a commercial that uses the "digital divide" to attract new customers. A student, who presents himself as having few resources, concludes that subscribing to a particular company will make the Internet affordable for everybody. It is interesting to see how capitalism uses the problems that it creates to create more profits. We, as an educational community, need to think about our own responses to the digital divide at our institution, if we want to avoid creating further difficulties for our students.

We may think that we won't find anybody feeling left behind at Connecticut College, as was the protagonist in the commercial, but this is an incorrect presumption.

Recently, in one of my classes, a student suggested that we created a group account through WhatsApp. More popular overseas than here, this app allows you to send messages by phone, similar to instant messaging. We could use this resource for students to talk about the class and for me to answer questions promptly outside of class time. I was very pleased with the results and the students seemed to be happy as well.

In the second week of the semester, however, another student signed up for the class who didn't have a smartphone. At that moment, I realized that we needed to be very careful with our use of technology. We could not assume that all students had access to the same devices.

From that day on, I limited my participation via WhatsApp. I conducted all formal student communications by email to include all the students in the conversation. I immediately realized that, without the WhatsApp, my ability to deal with issues on the spur of the moment was undermined.

Even today, when we don't meet as a class anymore, the WhatsApp group is very active. I sporadically participate, sending invitations to have lunch together or join in cultural activities. But each time I see a message from this group on my iPhone, I remember that not all my students are there, that one of them is always missing the conversation.

We need to make sure that, as an institution, we provide everybody with the same tools to succeed in a world that is more and more dependent on technology.

As a community, we can not assume that every student has the same access to technology. We need to make sure that, as an institution, we provide everybody with the same tools to succeed in a world that is more and more dependent on technology. If we fail in this task, we will always have somebody missing from the conversation.

—Luis González

Bridging the Divide

In a smaller class, using the app WhatsApp is a good technology choice. In this case, the students themselves suggested and wanted to use the app, it took advantage of a medium that students were comfortable using (texting), and it supported community building. However, as Luis pointed out, it revealed and then exacerbated an inequality of access to technology.

Here are some suggestions for bridging the digital divide.

First, know your students.

A broad getting-to-know-you survey could include questions their experiences with and their access to technology, in addition to querying their learning preferences, study habits, and academic goals.

Second, contact the instructional technology liaison for your department.

A conversation about your teaching and learning goals will lead to suggestions about technology options, support, and training.

Third, look into the technology resources on campus.

The library circulates iPad minis and laptops for students. You may want to take a step further, applying to participate in the DELI program, which provides devices for all students in a course. Technology liaisons are also available to help students learn how to use the devices so they can fully participate in all courses.

— Jessica McCullough

Luis M. González is an associate professor of Hispanic Studies. His research explores the relationship between culture and ideology in Spain in the 20th and 21st centuries. His courses include Spain: A Journey Through History and Culture; Spanish Cinema: Before and After Almodovar; Contemporary Spanish Women Writers; and Cervantes' Don Quixote.

Jessica McCullough is an instructional design librarian; she holds a Master of Information Science from the University of Michigan and a Master in Educational Technology from George Washington University. She works extensively with faculty and students to ensure that technology is widely accessible and comprehensible.

No Two REF Events Are Ever Alike

Reflections of a Residential Education Fellow

As I look back on four-plus years as a Residential Education Fellow, having participated in about 60 events, I can affirm that this is a valuable program. It offers students, faculty and staff a chance to get together and converse in a comfortable informal setting.

I've enjoyed conversations with students and colleagues, with alumni, community partners, and colleagues from other institutions. I've met people from all walks of life—attorneys, entrepreneurs, documentarians, photographers, community organizers, local farmers, social workers, teachers, and yoga therapists.

The variety of participants is only exceeded by the array of conversation topics. Many REF events are on political issues and current events, but REF also provides a space for discussions about campus issues. I have participated in conversations about hooking up; the increasing levels of anxiety, stress and depression among all members of the campus community; athlete-academics tensions; and the nature, magnitude and consequences of homophobia, sexism, racism and classism on campus.

Given that you never know who or how many people will show up, or how the conversation will go, a REF team quickly learns to be ready for the unexpected. Logistical snafus are part of the fun: locked rooms, food arriving late or early, or (my personal favorite) ordering a salad and getting a massive tray of pastries (that one actually worked out well!). Sometimes you are certain an event will be popular and it would have been great … if only someone had shown up. But there is redemption in a packed house, as when an alumni weekend REF event on the movie 42 drew Brooklyn natives who saw Jackie Robinson run onto the field in 1947.

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Ron Flores is a professor of sociology. In his research and his teaching, he examines the effects of immigration and increasing racial diversity on neighborhood racial integration and black segregation in urban areas. He is a Posse Mentor and a member of the CTL Advisory Board, in addition to his contributions as a Residential Education Fellow.

The Residential Education Fellows (REF) Program

The Residential Education Fellows (REF) program encourages the seamlessness of a living-learning environment, extending learning beyond the classroom. Eleven professors each year, in partnership with the staff of the Residential Education and Living (REAL) office, have provided events ranging from the traditionally academic to the more informal. REF participants have facilitated and hosted almost 400 conversations and gatherings since the program's inception in 2009. If you are interested in the REF Program, please contact Professor Catherine Stock (History and American Studies).

—Sara Rothenberger, Director of Residential Education and Living

Professor David Canton facilitates a REF event in a residential hall living room.

One Green Dot at a Time

Integrating Violence Prevention in Classroom Teaching & Learning

What's with the Green Dot?

Imagine a map of our campus where a red dot represents a single choice to cause harm to another person, the moment when someone uses their hands or words to hurt someone else. We don't know exactly how many red dots exist on our map, but we do know that there are enough to sustain rates of violence that are unacceptable to all of us. The solution is a green dot, a single moment in time that makes it less likely that a red dot will appear on our map.

For more about the research foundation and philosophy, visit www.livethegreendot.com.

In the words of John Dewey, "the self is not something ready-made, but something in continuous formation through choice of action." Students' choices, both in and out of the classroom, put the liberal arts into action. The Green Dot Bystander Intervention program supports this engagement, empowering students to make choices that will decrease power-based personal violence, including sexual assault, intimate partner violence, and stalking. Violence is too common on campuses across the country. Through Green Dot, we engage the community in intentional, meaningful ways.

There is empirical evidence that Green Dot is decreasing violence. In 2015, the Centers for Disease Control and Prevention (CDC) reported a greater than 50% reduction in the self-reported frequency of sexual violence perpetration by students at schools that implemented Green Dot. This level of violence reduction is unprecedented.

Connecticut College has been nationally recognized as a model institution, and is offering technical assistance to colleges and universities across the country. Most recently, the officers of the United States Air Force visited the campus this past March, in anticipation of their USAF-wide implementation of the program. Their goal? To understand what Green Dot looks like when it has become part of an institution's culture.

Faculty play a key role in the continued evolution of the Green Dot program and we invite all faculty members to join us in conversation. Proactive green dots can easily be integrated into existing courses.

Faculty can be a part of Green Dot in the following ways:

Start a Conversation

Wear a Green Dot pin, put a sticker on your door, or a Green Dot logo on your desktop—show a symbol of your investment.

Attend a Workshop on Campus

Discover how green dots can fit into the classroom and everyday life.

Develop Writing Assignments

Use journal entries and paper topics to open dialogue and engage students in ways that draw upon your disciplinary expertise. Topics could include the global effects of interpersonal violence, the impact of sexual assault shaming and social media, or the economic consequences of interpersonal violence for a community.

Add a PowerPoint Slide

Insert a slide to display before class starts with bystander stories and tips of the week. Small actions are a reminder that Green Dot is part of the campus culture.

Invite Us to the Classroom

We welcome the opportunity to speak to students in the classroom about Green Dot and connect it to their coursework.

For questions or more information about getting involved, contact Darcie Folsom, Director of Sexual Violence Prevention & Advocacy at dfolsom@conncoll.edu.

No one has to do everything, but everyone has to do something…what's your Green Dot?

—Darcie Folsom & CC Curtiss

CC Curtiss (left) is the Director of Student Wellness and Alcohol / Other Drug Education. Her responsibilities include coordinating the student Health Peer Educators and chairing the Campus Community of Care Advisory Board. She is a regular presenter at regional and national conferences.

Darcie Folsom (right) is the Director of Sexual Violence Prevention and Advocacy. Nationally recognized for her activism and leadership, she has participated in workshops and discussions throughout the United States, including a roundtable conducted by the U.S. Senate Committee on Homeland Security and Government Affairs.

Teaching & Learning Workshops for Visitors & Adjuncts

Visitor & Adjunct Workshops & Discussions

Spring 2015

- (In)Civilities in the Classroom: Problem Situations & Creative Solutions
- Student Evaluations & Eliciting Feedback that Will Improve Your Teaching

August 2015

- Syllabus Workshop for Visiting & Adjunct Faculty

Fall 2015

- Managing Classroom Discussion & Microaggressions
- Grading & Feedback
- Student Evaluations

January 2016

- Open Syllabus Workshop

Spring 2016

- Three Conversations About Being a Visitor or Adjunct at CC

Following conversations with CTL Director Michael Reder, Joyce Bennett (Anthropology) and Emily Morash (Art History and Architectural History) joined with the CTL to inaugurate a series of workshops for visiting and adjunct faculty members.

The CTL has offered syllabus workshops at the beginning of the semester for visitors and adjuncts for several years, and the Talking Teaching series is open to all faculty, but we knew—as visiting faculty ourselves—that visitors and adjuncts needed an opportunity to discuss our unique challenges. Our shared concerns include high teaching loads, outreach to students, making the most of our time on campus, securing resources, and, for adjuncts, teaching at more than one institution simultaneously.

We sent a Doodle poll to all visiting and adjunct faculty members, soliciting feedback on topics and possible meeting times. We then conducted two workshops in Spring 2015, a syllabus workshop in August, and monthly conversations throughout the 2015-2016 academic year. We met at various times throughout the day to accommodate the diverse schedules of people who teach high loads, juggle multiple jobs and/or institutions, and often teach during off hours.

The workshops have succeeded in multiple ways. Faculty from different disciplines have shared their experiences and knowledge, building community and improving the already high quality of their teaching. In several conversations, we have focused on continuous, reflexive feedback for and from students throughout the semester. We've also discussed the potential benefits of non-written feedback and evaluations, comparing the practices in different disciplines—public critique and hands-on commentary, for example.

The workshops have also provided faculty who were less connected to campus, or had limited exposure to a broad range of students, with insights on campus events and their impact in the classroom. Responding to student mobilization for full participation, we have joined together and workshopped ways to make classrooms inclusive places where students can freely and equally participate.

These conversations have challenged us to be better, innovative, and effective instructors, while fostering dialogue and community across visiting and adjunct faculty in all disciplines. While the workshops have been successful so far, they are only a first step in creating community and pedagogical support for visitors and adjuncts.

—Joyce Bennett & Emily Morash

Joyce Bennet (right), previously a visiting faculty member at the College, is now an assistant professor in anthropology. Her research and teaching focuses on sociocultural and sociolinguistic issues in Mesoamerica, focusing on immigration and on language revitalization. Her courses also provide students with a thorough grounding in methods and incorporate community learning.

Emily Morash (left) is a visiting instructor in art history and architectural studies. Her research focuses on the dissemination of modernist ideologies, approaches and technologies in Italy. Her teaching on modern and contemporary architectural history is richly interdisciplinary, addressing topics ranging from the Prairie School to public housing.

Changing Lives Through the Classroom

Is it possible to change the educational system from the inside, altering student outcomes through in-classroom initiatives? Yes.

As a Scholar in the Program in Community Action and Public Policy (PICA), I have worked to understand the gross disparities that exist within the public school system and, on a personal level, the ways in which I have benefitted from those disparities. To expand my knowledge and to undermine the status quo, I structured and conducted an empowerment workshop as a summer intern in the District of Columbia Public Schools. This year, as part of my senior integrative project, I chose to expand a nutrition curriculum for the Connecticut College Children's Program.

At the Children's Program, I volunteered to take a leadership and curriculum development role for the Camel Sprouts program. Camel Sprouts aimed to provide positive health outcomes for all students; it was created by PICA Scholar Paige Ziplow '15. It focused on preventing childhood obesity and providing accessible nutrition information, and was developed in collaboration with the College's Office of Sustainability. Nutrition interventions have been particularly effective at the preschool level, often decreasing children's fat intake while simultaneously increasing fruit and vegetable intake. According to recent studies, nutrition and physical activity interventions at the preschool level have sometimes drastically reduced children's weight, body fat, or body mass index (BMI).

This program is particularly important in the context of New London County, which, compared to the rest of Connecticut, has higher rates of heart disease and cancer; more emergency department visits for asthma, chronic obstructive pulmonary disease and infections; and higher rates of childhood obesity.

In the fall, I taught Paige's curriculum, teaching about each food group and emphasizing the importance of a diverse diet. In the spring, with the guidance of Patricia Lynch, the on-site nutritionist, I began to create a curriculum more focused on the science of food and eating.

I also included parents. We sent out newsletters every other week, with tips for overcoming picky eating; and cost effective, easy, healthy recipes. Our goal was to promote healthy, economical eating.

As this magazine goes to press, my quantitative analysis is ongoing. I am administering pre- and post-surveys to parents, asking about eating habits, grocery shopping, and whether children are included in cooking, among other activities. I have already received positive feedback from Children's Program teachers, parents, administrators, and children on the lessons.

Curriculum holds the power to make changes in students' daily lives outside the classroom and, therefore, in their future life outcomes. Our students will be best served if we choose to acknowledge the relationship between community and school, and the powerful ways in which knowledge can become a tool for altering social inequities.

—Grace Finley '16

Grace Finley '16 majored in Dance and in American Studies. Her senior integrative project as a PICA Scholar was advised by Dr. Kathryn M. O'Connor, Director of the Connecticut College Children's Program. This summer, Ms. Finley will serve as a Community Engagement Intern at Jacob's Pillow Dance Festival in Becket, Massachusetts.

Participating in a Professional Conference via Skype

A Seminar Reaches Beyond Its Classroom

When I was invited to present as a keynote speaker at the annual Africana Studies conference, which convenes at Central Connecticut State University (CCSU), it seemed that everything was coming together.

I had researched and written about my topic, which was how other people's notions impact Black bodies, and this was an extraordinary opportunity to present my findings. I was teaching a course, Human Development 402, an advanced research course that was devoted to some of the questions that surround social worker and teacher perceptions and misperceptions of black families. In the wider society, there was a focus on issues surrounding black bodies and law enforcement, as this was well after the deaths of Trayvon Martin, Michael Brown, Tamir Rice, Renisha McBride, and Eric Gardiner, among many. It was an extraordinary though sad moment for engaging on the variety of ways that social service providers may view Black families.

And then my heart sank. The date and time were right in the middle of my seminar. I thought, initially, that I would ask to present in the following year. Then I thought of taking students to the conference, but I knew that most could not afford to miss their other classes and be away from campus for a full day, in the middle of the week. Ultimately, I realized I could Skype the conference into the class, allowing all of my students to attend the meeting. I checked with the conference organizers and they thought this was a great idea, something that they could encourage all of their speakers to do.

Organizing the Technology

The logistics weren't difficult, because the tech people at Central were helpful and flexible, and because the students in my class were so organized and engaged. We also kept the technology simple, so that it was easy to organize at CCSU. At Conn, it helped that my students were in their regular seminar room, so watching me from there did not seem all that unusual.

I went to the conference early that morning, before my presentation, to make sure that the technology was working properly. We placed the Skype computer to the left of the podium, so that it didn't impede the speaker's view of the audience or the audience's view of the speaker. The close proximity to the podium was necessary, though, for my students to be able to hear. When things were happening in the audience, away from the podium, we moved the computer so that the students could see.

We also set the students' Skype computer on mute, so their conversations could not be heard at the conference. This allowed my students to talk about the conference and the presentations; they helped one another to understand what they were seeing and hearing. When my students had questions, they texted me. Some questions I could answer, others I posed on their behalf, during the conference, and then relayed answers back to them.

On campus that morning, my seminar students arrived a half hour early to ensure that they set up the technology correctly. We also had welcomed another of my classes to the classroom. The two classes worked together well, helping one another with logistics and with the content of the conference.

Modeling Preparation and Creativity

I know it was important for me to have my students as partners, participating in

... *Continued on page 33*

Michelle Dunlap is a professor of human development and chair of the human development department. A strong advocate of community learning and engagement, her research and teaching focus on multiculturalism and diversity. Her books and articles testify to her commitment to strengthening cultural competencies among her students, and among professionals working with children and families.

Teaching Across Borders

Since Fall 2011, I have taught two courses that included teleconference or Skype sessions with colleagues and students abroad: "SLA 320: The Net Generation—Russian and American Youth Cultures" (in 2011 and again in 2014), and a first-year seminar on global youth cultures (2015). Learning from our experiences through trial and error, my colleagues and I have significantly changed the format, preparation, meeting frequency, and goals of our course collaborations over the past five years, thereby creating a series of best practices that work well for us and that suit our institutional and pedagogical needs.

The first two times I taught "The Net Generation" with a colleague at the Higher School of Economics in St. Petersburg, Russia, my colleague and I used the same syllabus and connected our classes via teleconference each week. We led discussions on such topics as generational conflict, comparative education systems, student life, youth activism, and social networking among Russian and American students.

We discovered immediately that this form of teaching brings enormous value and pedagogical gains. It provides ample opportunities for students to develop intercultural skills, while also learning directly about cultural differences, values and practices from peers abroad. Students from different cultures possess different "social stock of knowledge" (Berger and Luckmann 1966, 39) which in part is what makes it so interesting to partner.

Not surprisingly, we also discovered that this form of teaching presents considerable logistical problems. These result from different academic calendars and institutional cultures, instructional technologies, and time differences; even Daylight Savings time can be a wrench in the machine for those teaching across time zones. The greatest challenge, however, came in negotiating our different assumptions about many facets of academic life, including codes of academic conduct and conventions of discussion-based learning.

In my first-year seminar, I made significant changes to the weekly-meeting format, cutting the number of teleconference sessions from twelve to six; I also partnered with two institutions instead of one (adding Collegium Civitas in Warsaw). We all taught different courses with separate syllabi, which allowed us to meet the needs of our respective institutions, while including partner discussions on common themes with shared texts.

We learned that it helps to organize informal student discussions outside class on the weekend before a teleconference session to set the scene for more sophisticated discussion and cross-cultural analysis in class. Online discussion boards also promoted discussion outside class, as did Facebook groups, pair work, and joint research projects. Structuring discussions and giving timelines for students to respond to partners abroad were crucial to facilitating productive dialogue, with students communicating the values and practices of their cultures to one another.

We have also learned the importance of using the physical screen or monitor to promote effective communication, rather than simply fusing two classes with no attention to setup or space. By designating student facilitators in advance and seating them in front of the camera, we helped students hone their presentation skills.

In the evaluations for all three courses, students remarked that they found the teleconferencing sessions dynamic, exciting, and extremely valuable for imparting critical skills. I know of no better way to advance intercultural communication, to illuminate cultural institutions, to shed new light on one's discipline than by team-teaching across borders.

—Andrea Lanoux

Peter Berger and Thomas Luckmann, *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*. New York: Doubleday, 1966.

Andrea Lanoux is associate professor and chair of Slavic Studies. A recipient of the Helen Brooks Regan Faculty Leadership Award in 2014, she has published on Russian and Polish Romanticism, gender and national identity, and children's culture in Post-Soviet Russia. Her courses include Russian language at all levels, Russian literature and culture, and gender in communist and post-communist societies.

This sampling of posters highlights just a few of the discussi
facilitated, and conducted by Connecticut C

ions, performances, and presentations that were organized, ollege students from May 2015 to May 2016.

Re-examining the Final Exam

In introductory and upper-level science classes, the traditional form of final assessment is a timed written exam. This was the way it was done throughout my educational journey. As I was taught, so I taught—with *some* modifications!

As time went by, I began questioning my educational goals, asking whether they were achieved through a traditional final exam. Why had I chosen this form of final assessment? For many of my students, this was their last interaction with the study of astronomy. What kind of experience was it for them? To what learning styles did a seated, written, timed final exam appeal? Was a final counter-productive? The goals for my introductory astronomy classes, in addition to basic content knowledge, application and analysis, include motivating students to want to learn more, either in a formal class or by teaching themselves outside the class. Did a final exam instill this desire to engage with astronomy? Probably not.

Responsive Teaching & Learning

I suspected that most of my GenEd students were taking introductory astronomy classes not because they really wanted to, but because they looked like the least offensive GE Area 1 class they could find. My sense was that some of these students left the class, after what were probably stressful exam experiences, with a more dour impression of astronomy.

After contemplating goals and assessment strategies, making many changes that incorporated universal design in my classes, I resolved to try a completely different mode of final assessment in my Solar System Astronomy (Astronomy 105) class. I elected to have these students present a poster for a class conference on planetary astronomy. Each student chose a topic, which I approved, and prepared a poster about that topic. Then, during a conference presentation, each student's poster was reviewed by two other students from the class. So each individual produced and defended a poster topic, and reviewed two posters during the final exam period.

The posters were a high stakes final "paper." The reviews were a lower stakes assignment, which ensured that the reviewer actually understood the basic topic ideas presented by the poster. I assigned the reviewers, so students did not find their poster being evaluated by a known friend and/or lab partner. Guidelines for posters and reviews were provided well in advance.

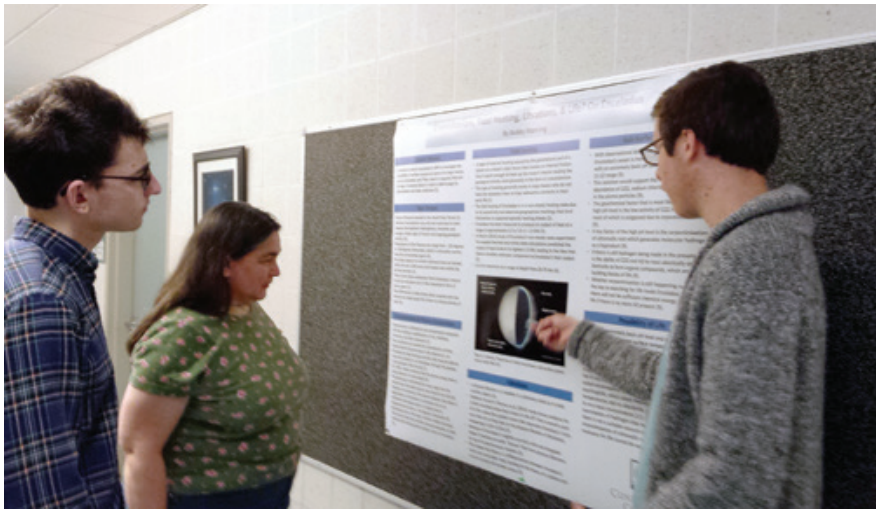
The conference lasted roughly three hours, approximately length of a final exam session. After about an hour and a half, students switched roles. Presenters took their posters down and became reviewers, while reviewers put their posters up, presenting their topics and answering their reviewer's questions.

The goals for the conference were to evaluate 1) if each student could research a topic in astronomy, 2) if a presenter could succinctly summarize the basic ideas of their topic in a poster, then 3) stand in front of their poster and discuss their topic with me, their assigned student reviewers, other faculty and the public during the 3-hour final "conference". Also important, 4) students had to assess the work of their peers, submitting their reviews as part of the final exam. These goals cultivated students' written and verbal presentation skills, while stimulating their intellectual curiosity and refining their research skills

A Successful Conference

The conference met all of these goals and had several additional benefits. Students had the opportunity to undertake and experience "astronomy research," learning how to write clearly and concisely about a science topic. I found that I could quiz students without appearing to conduct an oral exam. Plus, the student reviewers had a chance to learn about a new area of planetary astronomy *during the final*, while interacting in a quasi-professional forum with fellow students.

I began questioning my educational goals, asking whether they were achieved through a traditional final exam.



Bobby Manning '19 presents his first-year seminar poster, "Cryovolcanism, Tidal Heating, Librations & Life? On Enceladus," to Dr. Beverly A. Chomiak, senior lecturer in geology and environmental studies.

The class size was right, the technology was suited to our needs and readily available, the Academic Resource Center was available to coach students and to help with printing the posters.

Students said that was that this was one of the most "fun" finals they had ever taken. I had never heard the word "fun" used for one of my finals before! I saw lots of student engagement during the poster presentations. Students were talking and asking questions, the room was active and all students were engaged in discussions, mostly about astronomy. Many students were smiling and laughing. Students were participating in a mock professional scientific society meeting poster session. There were sodas and snacks as well—just like the real thing, minus the coffee.

After each session, I took all the posters and reviews home for further evaluation and grading.

The Pros & Cons

I first tried this form of a final assessment in 2004. Then, my students made their posters out of cut-and-paste text and images, which they glued onto large cardboard poster-boards. I was responsible for getting all the supplies needed for the student poster projects and for providing a space in which students could create them. These posters were difficult to make and transport, and were not correction-friendly; they could easily fall apart. Technology came to the rescue years later with large-format printers. Students could now compose a poster, and edit content and imagery on the computer before printing the final product. Plus, these posters could be rolled and transported in tubes. Cost was one of the few remaining problems.

Class-size was also a logistical issue, at least in the way I conducted the poster conference. My Solar System Astronomy classes had thirty-six students. In order to spend at least five to ten minutes speaking with each student, making notes on what they understood about their topic, and handling all poster session questions, I had to divide the class into two sections, with one group doing their poster conference on one day while the second half of the class did their poster session on a second day—eighteen students per session. This required a lot of behind the scenes set-up and organization. I had twice as many final examination periods to supervise. It was very tiring. The presentation format didn't require much more work than writing and proofing a standard final exam, but the effort was more concentrated and intense rather than spread across several weeks. And there was no going back and reusing questions from older exams!

After 2007, I gave up on the poster session format for final exams, because of these issues.

Astrobiology: Searching for Life in the Universe

A First-Year Seminar Conference

Poster presentations included...

- Earth's Mass Extinctions
- Robots versus Humans: The Future of Exploration of Space
- Extrasolar Planets
- Cryovolcanism, Tidal Heating, Librations, and Life on Enceladus?
- Life in the Lab: Creating Complex Compounds from Raw Chemicals
- The Fermi Paradox
- Sleep Paralysis and Alien Abduction
- The Great Oxidation Event
- Our Moon
- The Shadow Biosphere
- Is Earth Rare?
- The Biospheres Surrounding Terrestrial Hydrothermal Vents
- The Effect of Milankovith Cycles on Earth's Climate

In 2015, I revived this format as it was perfect for my freshman seminar. Seminars are usually less than sixteen students, and my seminar topic, astrobiology and SETI, was perfect for a poster conference where we could explore topics that weren't covered in class or that benefitted from further examination. The class size was right, the technology was suited to our needs and readily available, the Academic Resource Center was available to coach students and to help with printing the posters. In other words, the stars aligned. Our astrobiology poster conference went quite well and without significant extra work on my part.

In the end, I was pleased with the quality of the students' written work and understanding of basic astronomy concepts; a sample poster is shown here. I was also pleased with the students' engagement. They left the exam smiling and looking relaxed, not stressed. I am now contacting my first-year students for their post-class impressions of astrobiology. That knowledge and interest was, after all, one of my principle reasons for doing poster session finals. So far, my final poster/exam has met all my expectations and I am planning on using this format for my future first-year seminars. Not too bad for a final!

—Leslie Brown

Leslie Brown is an associate professor of physics. Committed to astronomy education and public outreach, she took the lead in establishing the College's astrophysics major and the astronomy minor. Her published research includes articles co-authored with students. In addition to the courses discussed above, she also teaches Introduction to Astrophysics, Origin and Evolution of Our Universe, and Observational Techniques in Astrophysics, among others.

How to Develop, Design & Present a Poster Successfully

Poster presentations build critical connections between textual and visual literacy, and between written and spoken communication. They are becoming increasingly familiar on the Connecticut College campus—and increasingly sophisticated. For resources to support students in realizing the full potential of their poster presentations, contact the Academic Resource Center. Here, an overview is provided of key elements in the poster-creation process.

Posters typically present work that is in progress or recently completed; they are intended to elicit feedback from a diverse audience.

Presenters then provide a guided tour through the poster, suiting their remarks to the audience's knowledge and interest. Whether providing a 30-second overview, or a five-minute discussion, a presenter must be prepared to engage the audience and answer questions.

To design an effective poster, which will support an engaging presentation, a scholar needs to carefully consider the content and organization of the information, the design of the poster, and the performance of the presentation.

The Content: Selectivity Matters

Decide what ideas and information you want to present. Then, divide this content into three categories.

There is what the audience "must know" to understand your ideas and argument. This must be highlighted throughout the poster.

Then, there is the "good to know," which supports the "must know" and makes it more accessible. Be sure to have some of this information on your poster, though it will be conveyed mostly through your spoken presentation.

Finally, there is the "nice to know." This includes the rich historical and social context of your analysis, the expected costs or anticipated consequences of your recommendations. Provide this information through your spoken commentary or in a supplementary handout.

The Organization: Be Clear

Your poster must include the following:

- Title (usually centered across the top of the poster display)
- Author(s), including collaborators, the faculty advisor, the course number and name, the department, and the college; you may also wish to provide contact information
- Introduction, or Purpose or Objectives depending on your discipline
- Methodology or Research Design
- Results or Findings
- Discussion
- Summary or Conclusion
- Acknowledgements, including any funding sources
- Bibliography

The Design: Create Coherence

Your poster needs to be uncluttered, neat, and professional. Text and visuals should be readable from a distance of at least ten feet.

Know your technology and use it to maximum advantage. The ARC recommends creating posters in PowerPoint, which is available on College computers throughout the campus.

Layout the poster so that your audience knows where to start reading and how to advance through the design space. Provide arrows or numbers, if necessary.

Match your layout to your message. If you are telling a story, then a left-to-right arrangement allows your audience to visually advance through your narrative. If you are presenting an image, placing it at the center, with surrounding explanations, makes your focus immediately clear to the viewer. If you are

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Heidi Muñoz '17 presents her poster to Gil Mejia '17 at Professor Ariella Rotramel's Feminist Theory conference.

Noel Garrett is the director of the Academic Resource Center and the dean for academic support, overseeing the Writing Center, student accessibility services, and the office of student career and professional development. Dean Garrett's doctorate is in clinical, cognitive, social, and developmental psychology; prior to entering academia, he had a successful career in banking and consulting on Wall Street.

The Academic Resource Center

Presenting Student Research

On the second floor of the library, behind a set of glass doors, is the Academic Resource Center (ARC). This new location allows greater access for students and faculty: It is just a short walk from the library's book stacks and reference desk, the computers and the study carrels.

One of the major services ARC provides is poster support. Knowing the significance of posters within the community, the Resource Center reaches out to all students and faculty to provide assistance. Everything from the initial design to the final proofs can be worked on with the Resource Center, whose members give in-depth presentations to classes.

On top of this one-on-one support, the Resource Center also hosts multiple presentation forums including, but not limited to, the Summer Research Symposium. These presentations are a platform for students to showcase their research to a wider audience. With many seniors required to present their research as part of their graduation requirement, the ARC hosts forums specifically for that purpose.

A quick stop at the front desk is all it takes to set up an appointment with one of the Center's specialists. The ARC also provides a list of tutors and their schedules if needed. Olivia Liebnick '16 comments, "If a student comes to Noel [Garrett, the ARC director] with a concern about a class, he will find someone to help that student and then also check in with them. He finds the help if he cannot supply it."

Not only is the ARC an area for academic support, but also a place of safe haven. It acts as a mediator for students in all aspects of their lives. Students will quickly find that their wellbeing takes precedence above all else. "When students visit the ARC they can expect support," Liebnick points out. "Being away at college, everyone needs a place that is there for him or her whenever. Students can come to the ARC to talk with learning specialists about stress about school, or even just a success that he or she had in class that day. Students will feel welcome and will get the help they need."

Dean Noel Garrett emphasizes, "The Academic Resource Center is for the entire College community. It provides academic support services for all students to reach their maximum academic potential." So stop on by the second floor of the library and say hello. Meet some new friends, have a few laughs, and enjoy all that there is to the Academic Resource Center.

—Pat Pero

Pat Pero is an Academic Resource Center program coordinator. A specialist in writing and the writing process, Mr. Pero personally assists students with their academic assignments. He appreciates the opportunity "to use my skills to help other people." The "Keep Calm" note (left), inscribed on the white board during finals period, is evidence of the extent to which students value his guidance and expertise.

The Evolution of Community Learning

It's Only Natural

The Goodwin-Niering Center for the Environment (GNCE) is a competitive application academic center at Connecticut College, in which students complete work beyond their majors and minors to earn a certificate in environmental studies.

For sophomores in its certificate program, the Center offers a community learning course. This class teaches students the environmental legacy of Center namesakes Richard Goodwin and William Niering; bonds sophomores together through shared responsibilities; and contributes to the Avalonia Land Conservancy, whose properties are located throughout southeastern Connecticut.

The course has evolved and changed, but there are several qualities that have remained consistent throughout the years and have contributed to the success of the course, the certificate program, and the Center itself.

AVALONIA HAIKUS

BY THE GNCE CLASS OF 2017

Ospreys wheel above
learning is a two-way street
with young-bird lovers

Knox Preserve displayed
lush green springtime nature, we
made art into art

One group one mission
countless reeds and countless
brush
feeling accomplished

Jennifer Pagach
thank you for guiding us all
with your long red hair

To the goddesses
Beth, Binti, Anne, Michele, Thank
you for teaching us

Small land trust big heart
seeking help from volunteers
together we stand

History, Advocacy, and a Sense of Place

Together, the Center namesakes, Professors Goodwin and Niering, donated over 100 years of service to Connecticut College and were pioneers in the environmental field. Reading Goodwin's autobiography, students learn how he personally acquired many acres of the College Arboretum. They study his advocacy for land conservation, which Niering continued and strengthened. Learning about this legacy, students report feeling humbled and proud, and inspired to be activists.

When I ask our seniors to reflect on their time in GNCE, they most frequently mention the sense of community fostered through their partnership with Avalonia. The community learning course is a tireless group effort, a concert of individuals and groups sharing talents and working together to make something amazing. With each Center generation, the efforts and results grow. I think that would make Richard Goodwin and William Niering proud.

Community Service and Environmental Stewardship

Partnering with Avalonia Land Conservancy provides easily accessible, local projects. It also builds lasting bonds throughout the community. Avalonia volunteers come to class. They present about their organization and their needs, and they work directly with students to design projects that will benefit

... Continued on page 33

GNCE sophomores, Associate Director Jen Pagach, and Professor Derek Turner joined together for a successful workday at the Perry Natural Area in Stonington. For an ongoing account of the GNCE-Avalonia partnership, visit Avalonia eTrails at http://avaloniaetrails.blogspot.com/.

Jennifer Pagach is the associate director of the Goodwin-Niering Center for the Environment. She is the founder of Power of Change, a consulting firm which helps communities, ecosystems, and individuals to accommodate and embrace environmental change. Before coming to Connecticut College, she was an environmental specialist and analyst at the Connecticut Department of Environmental Protection and at the Connecticut Department of Public Health.

From Connecticut College to Nepal

Earthquake Relief

The night before all of this happened, we had a conversation about Kathmandu, the city of temples, our only home. We said that our holy city is protected by the zillion gods and there is something mystically safe about it. The next day, we woke up to shattered temples and buried lives.

On April 25, 2015, a devastating earthquake occurred in Nepal, killing over 8,000 people and injuring more than 21,000. It was the worst natural disaster to strike Nepal since 1934. Entire villages were flattened; hundreds of thousands of people were made homeless. Centuries-old buildings were destroyed, including the UNESCO World Heritage sites in the Kathmandu Valley.

While we were safe in our dorms, thousands of Nepalese, including our families, slept in tents. We received phone calls from our family which disconnected with screams of terror. Everyone lived in constant fear of another aftershock.

In response, we reached out to my Nepali friends at Connecticut College to devise a plan to help our communities back home.

We began with a GoFundMe account. We organized a candlelight vigil on campus to inform people about the disaster and to increase our funds. With the help of students, faculty and staff, we were able to collect about $3000. We immediately donated $500 to a group of friends back home who were distributing food and temporary shelter to earthquake victims of Nuwakot and Kavrepalanchowk district. After the finals were over, with the generous support Camp Teach & Learn participants, we collected additional funds.

We reunited in Kathmandu after our junior summer internships. Collaborating with Hamro Chahana Nepal (HCN), a non-profit organization, we planned our earthquake relief trip to Galdha, a rural village west of Kathmandu. We chose this location because it was so remote that it had received no help from other sources.

Late in the afternoon of August 22nd, we left Kathmandu city. Drenched in monsoon rain, the roads were slippery and dangerous. Our van nearly tumbled off the hill. It got stuck in the mud, compelling us to walk for hours. In the final three hours, we crossed a waist-high river barefoot and walked up tiny almost-vertical slippery trails. After 24 hours of travel, we reached Galdha.

When we arrived, we were welcomed with tika, garlands, and candies. There were speeches by the prominent leaders of the village, including the principal and local government officials. The villagers expressed their gratitude to us, for caring enough to help, even though we had left Nepal. They also expressed their appreciation to our donors, including members of Connecticut College. The event was also covered by the local newspaper and radio station.

We distributed six CGI (corrugated galvanized iron) sheets for families whose houses were either severely damaged or completely destroyed by the earthquake. These sheets were used to build temporary metal shelter and, later, to construct new houses. We also donated $500 to rebuild a local primary school which the earthquake had damaged.

Overall, our journey was an amalgamation of physical tussles and mental elation. Our risks – landslides, slippery roads, political stability – were daily life for the villagers, who were in extraordinary need after the earthquake. Realizing that, we came back a little prouder of our education at Connecticut College, which encourages students to be active in their community.

—Prapti Kafle '16 &
Sadikchhya Khanal '16

Galdha residents welcomed Prapti Kafle '16 (third from right) and Sadikchhya Khanal '16 (far right) on their arrival. One of the CGI sheets, which they delivered, can be seen in the foreground.

Prapti Kafle '16 is an American Chemical Society chemistry and mathematics double major, a Winthrop Scholar, and a member of Pi Mu Epsilon and Phi Beta Kappa honor societies. She is interested in sustainable energy research and will pursue her Ph.D. in Chemical Engineering at the University of Illinois Champaign- Urbana.

Sadikchhya Khanal '16 is a psychology major and dance minor, who is interested in the incorporation of mindfulness and movement therapy in psychological treatment systems. She is currently doing her internship at Sound Community Services where she teaches Yoga and mindfulness to individuals with mental illness.

Stereotype Threat in Teaching & Learning

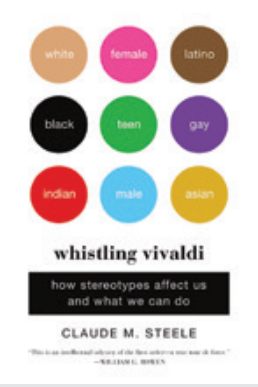
I first learned of the book *Whistling Vivaldi* by Claude Steele in the summer of 2014 at the Association of American Colleges and Universities Teaching to Increase Diversity and Equity in STEM Institute, in Washington, DC. I attended this conference with Chad Jones (Botany) and James Lee (Computer Science) as part of a grant proposal we wrote with Gary Parker (Computer Science), titled "Improving Computing Competency and Increasing the Number of Underrepresented Computer Science Students through Science-Informatics."

The keynote speaker was Brian Nosek, a key figure in the famous and compelling Implicit Association research and the popular (and sometimes shocking) implicit association tests (IAT tests) that you can take online. His talk was a must for anyone unfamiliar with the social psychology research on implicit bias, especially educators. (I would love to see President Bergeron bring him to campus for her presidential talk series. If his talk doesn't get us to all buy in on full participation and inclusive excellence, I don't know what will.) It laid the perfect foundation for our work throughout the conference, which focused on culturally relevant pedagogy, helping us to teach in a way that does not dissuade members of underrepresented groups from continuing in our classes.

Nosek recommended *Whistling Vivaldi* by Claude Steele, which presents Steele's research on stereotype threat.

Here is what Steele and his colleagues' carefully designed research experiments have quite convincingly shown—even to a theoretical computer scientist like myself, who tends to be skeptical of an argument unless a rigorous mathematical proof is provided.

Stereotype threat seems to apply universally, to all groups. From the extensive experiments that psychologists have done, it seems to apply universally. Whatever group you belong to is stereotyped in some way in some setting. Stereotype threat is not only, for example, about women and math.



Stereotype threat is real and measurable. In hundreds of carefully designed controlled experiments, the performance in the target activity of the group under the stereotype threat was worse than the non-stereotyped group. Women vs. men on math tests. White runners vs. black runners in a sprint. When the stereotype threat is "removed" via subtle experimental design, the performance differences between groups disappear.

Stereotype threat operates in our subconscious. We often don't *realize* that stereotype threat is interfering with our performance. We don't consciously attribute additional anxiety during our performance to the stereotype threat, but its presence can actually be measured *physiologically* (blood pressure measurements, brain activity in certain regions via MRI scans, and so on).

Stereotype threat effects are worse if you care about doing well. The harder you try, the more you care about your performance in an arena, the more the stereotype threat *impedes* your performance. Note that, of course, those who are not under stereotype threat perform *better* when they try harder and care more. This exacerbates the apparent gap in performance ability.

Stereotype threat effects are worse if you are doing something hard. Stereotype threat most *negatively* affects our performance on tasks at the *boundary* of our ability, those that we find most challenging, those that require all our faculties. In contrast, it can actually manifest as an *improvement* in our performance on easier tasks. For example, when stereotype threat was present, women actually did better than men on the easier math tests due to the motivation that the stereotype threat provided. But women did worse than men on the very challenging math tests. Again, when the stereotype threat was "removed," all performance differences went away.

Stereotype threat seems to have serious long term health effects. It provides an explanation for higher blood pressure among African Americans in the US, even when other factors like income and diet, are controlled for. Especially since African Americans who *don't* exhibit "John Henry-ism" qualities (e.g., working extra hard in an effort to overcome social discrimination), *don't* have higher blood pressure on average than non-black Americans.

I've incorporated these and other lessons learned at the Institute into my teaching, adding more active learning time to my classes. I have also spent more time in my intro class debunking "myths" and stereotypes about computer scientists. Just having this clearer understanding of the stereotype threat phenomenon has allowed me to be more effective in mentoring our Women in Tech group.

—Christine Chung

Christine Chung (right) is the Jean C. Tempel assistant professor of computer science. Her research interests lie in online and approximation algorithms, as well as algorithmic game theory. Her courses include Introduction to Computer Science and Problem Solving, Theory of Computation, Topics in Algorithmic Game Theory, and the Computer Science Research Seminar.

Launching a Mentoring Program for CC Women in Science

Connecting Undergraduates with Alumnae

Does participating in a structured mentoring program have an effect on the science identity development of Connecticut College women in STEM? Yes.

According to the U.S. Department of Labor, women comprise 47% of the U.S. workforce, but occupy only 26% of all science, technology, engineering, and mathematics (STEM) jobs. Women of color are even more underrepresented, and comprise fewer than 1 in 10 employed scientists and engineers. Women's low representation does not reflect a low interest in STEM; rather, they are a product of the high dropout rates of women as they progress through the STEM pipeline.

Many factors contribute to these high attrition rates. Popular stereotypes about the interests and capabilities of girls can leave them feeling less confident and less prepared in the arena of science. Social and academic isolation can make it difficult to assimilate into a college environment, and even more difficult to navigate a rigorous course of study, leading to decreased motivation and under-performance. Underrepresentation also means lower visibility of female role models and lower access to women mentors. The relatively homogenous and masculine culture of STEM means that many women find that they are outsiders within these professions. These factors represent barriers to science identity development and equate to a lower likelihood of persistence.

Mentorship may mitigate the effects of these barriers. Mentorship reduces social and academic isolation, and provides the recognition a student needs to believe in herself. Additionally, the mentor serves as a role model and a point of access to the professional world. Through her mentor, the student is able to imagine what it would really be like to work in STEM, and may find inspiration and confidence to pursue more ambitious goals. The mentor may also derive benefits. Ideally, mentoring a student enhances the mentor's self-perception as a STEM professional, which may translate into more confidence in her own career choices.

To test whether participating in a mentoring program enhances science identity development in Connecticut College women in science, I recruited 11 alumnae and 12 students to participate in a six-week mentoring program. Mentees included students majoring in Biology, Environmental Science, ACS

... *Continued on the next page*

Kneeling left to right: Ashley Bjorkman '17, Laura Lundegard '18, Christina Villalobos '18, Julia Packman '18. Standing first row left to right: Melanie Argueta '15, Jyneval Pickel '15, Monica Dillon '18, Angelica Warren '18, Mofida Abdelmageed '18, Rakhshi Qureshi '18, Tanya Songtachalert '18, Gabriela Lopez '15, Metika Ngbokoli '15. Standing second right left to right: Kelsey Fischer '18, Mariah Warren '19, Yumi Kovic '14, Sarah Joelson '15, Emily Impellitteri '15, Amanda Coletti '15, Jennifer Blagg '13, Lisa Cloonan '09, Dana Canfield '16

Chemistry, Behavioral Neuroscience, Biochemistry, and Computer Science. Mentors were recent graduates, including research assistants and patient care technicians at medical institutes, an interface engineer, a business analyst at a pharmaceutical company, a third-year medical student who was also pursuing a Master of Public Health, and a Ph.D. candidate studying physiology and neurobiology.

I hosted a training workshop in late January, which gave participants an opportunity to meet face-to-face, discuss successful mentoring practices, and prepare for their roles as mentors and mentees. I assigned mentoring partners based on educational goals, career trajectory, and mutual interests. Mentees were asked to reach out to their mentor the following week, which marked the start of the six-week program.

"It is very comforting to see people coming from the same place as you and doing well. It gave me a feeling that this is possible, and if other people can do it, so can I."

Mentoring pairs communicated via video chat, phone, email, social media, and text message throughout the six-week program. Although some participants reported varying levels of availability and responsiveness, most mentoring pairs communicated for 30 to 60 minutes on a weekly or biweekly basis. In some cases, the mentees were able to meet with their mentors in person, and others were able to tour their mentor's workplace.

Statistical analysis of the science identity survey results is ongoing at the time this article is going to press. However, I have received qualitative feedback. All participants felt their partner was an appropriate match. One student said, "In my household, the norm after obtaining a bachelor's degree is to go directly into obtaining a master's degree. However, I don't know if that is what I want. I know I want to continue with research, but at what level and what type of research? [My mentor] was the perfect match for me because she didn't go directly into a master's program and I wanted to get an idea of what life is like in that pathway."

Additionally, mentors and mentees alike reported increased confidence in their decision to pursue STEM. One mentor said, "Corresponding with my mentee got me thinking more seriously about my own STEM career. It helped me decide that I actually want to pursue a Ph.D., instead of an M.D.-Ph.D. dual degree like I initially planned." Another student wrote, "It is very comforting to see people coming from the same place as you and doing well. It gave me a feeling that this is possible, and if other people can do it, so can I."

Knowing that 23 women were able to form lasting connections was one of the most rewarding parts of this program. When asked if they would continue their mentoring relationship beyond the six-week program, all participants answered yes.

Participants made valuable suggestions for future trials. Several participants expressed regret that they did not have a chance to speak with everyone at the Training Workshop. These participants suggested incorporating a "speed-dating" activity to ensure that all mentees have a chance to meet all graduates so they could make an informed decision when requesting their mentor. Additionally, participants requested more opportunities to meet and engage with other participants in person. Some participants felt the workshop was one of the most empowering aspects of the program. Finally, nearly all participants recommended extending the length of the program to give participants more time to develop their relationships. In the future, I hope to see this implemented on a semester-long or yearlong basis for maximum impact. I look forward to collaborating with campus members to ensure that this program continues to support Connecticut College women in STEM.

—Dana Canfield '16

Heidi B. Carlone and Angela Johnson. "Understanding the Science Identities of Successful Women of Color: Science Identity as an Analytic Lens." *Journal of Research in Science Teaching* 44.8 (2007): 1187-1218. Naomi C. Chesler and Mark A. Chesler. "Gender-Informed Mentoring Strategies for Women Engineering Scholars: On Establishing a Caring Community." *Journal of Engineering Education* 91.1 (2002): 49-55.

Dana Canfield '16 is a Scholar in the Holleran Center Program for Community Action and Public Policy (PICA). This article presents an overview of her senior integrative project findings. A Biological Sciences major with a Cellular & Molecular concentration, after graduation she will work as a medical assistant and apply to physician assistant programs.

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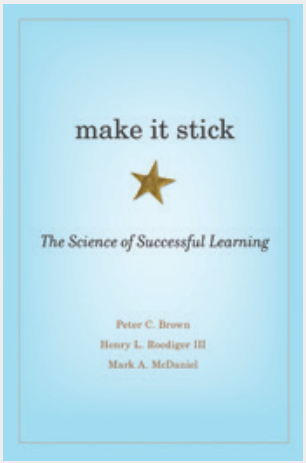


Make It Stick, The Science of Successful Learning

Peter C. Brown, Henry L. Roediger III and Mark A. McDaniel. Cambridge: Harvard University Press, 2014.

If you have ever been perplexed about how to advise a student who performs poorly on exams despite hard and consistent studying, then you should read this book. *Making it Stick* describes evidence from numerous carefully designed experiments showing that the common-sense approaches to studying used by students — and endorsed by parents and instructors — are remarkably ineffective. Reviewing class notes, re-reading highlighted sections of books and reading notes taken from books do not substantially improve learning. These approaches primarily affect short-term memory, at most helping students cramming immediately before an exam. They don't work well for improving long-term retention of information.

Experimental tests consistently show that effective learning comes from the more challenging and sometimes frustrating effort involved in recalling, explaining, and applying concepts from memory. In many courses, this happens only on midterm and final exams, when it is too late for students to improve their performance.

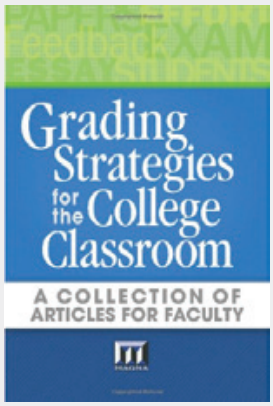
One observation that particularly resonated with me was the "illusion of mastery" that comes from traditional approaches to studying. Students who carefully follow lectures or classroom discussions and take notes, and who read and repeatedly review assigned readings, begin to think they understand the material because they have followed all of these explanations without trouble. If their first opportunity to explain a concept from memory comes on the exam, however, they often find that they have not fully mastered the concept. Hence they may feel tricked by the exam, which seems to test them on something more complicated than what they studied.

Testing one's recall and understanding *should* occur continuously during the process of learning. This can be done with frequent low-stakes quizzes and written commentaries. Flash cards are effective, particularly if they are constantly re-shuffled and are cumulative throughout the semester. It can also be achieved with class discussions, but only if these discussions require students to explain concepts from memory. Discussion groups can work if all participants take turns explaining concepts to one another. They are less effective if more knowledgeable students instruct other students. The common denominator in all of these approaches is that students must engage in the hard work of recalling and explaining concepts. This is true regardless of whether this involves remembering terms, explaining complex processes such as the chemical steps in photosynthesis, or integrating information from different disciplines.

Re-reading, summarizing and reviewing becomes easier with time, leading students to think they are making rapid progress, but the deeper learning that results in long-term retention requires harder work. This doesn't necessarily require more time, but it does entail frustrating mistakes that are important for learning. Consistently recalling concepts from memory not only results in better performance on exams, but in more effective retention, so that a student in intermediate economics will recall more of what he or she learned in introductory economics. More importantly, students will retain more of what they learn after they graduate.

The authors call for greater emphasis on testing from memory, an approach that may seem antithetical to creativity and self-expression. They point out, however, that it is difficult to be creative in a useful way if one doesn't know anything about the subject. How can a student become an effective and creative chemist, doctor, literary scholar, or poet without having, respectively, a mastery of chemistry, medicine, literature, or language? Regardless of this debate about memorization and creativity, however, most instructors hope their students will learn and retain something from their courses. Steering students away from passive studying and toward more mentally active studying that constantly challenges their understanding of concepts is a demonstrably better approach.

—Robert Askins & Katharine Blunt
Professor Emeritus of Biology



Grading Strategies for the College Classroom, A Collection of Articles for Faculty

MaryEllen Weimer, Rob Kelly, and Barbara E. Walvoord. Madison, ed. WI: Magna Publications, 2013.

Computing has been gaining recognition, not only as a scientific discipline, but for its potential to connect with other disciplines. This is especially true in regard to the liberal arts: Computer science (CS) finds direct application in the natural sciences, digital humanities, arts and the social sciences.

If computational perspectives have been incorporated across many disciplines, CS education also has adopted new approaches, drawing from different disciplines to increase engagement. In so doing, CS has become more inclusive and has contributed to full participation. As students enter our classrooms with a wider range of backgrounds, new grading and assessment strategies help us improve student learning. *Grading Strategies for the College Classroom* offers a collection of short articles that provide diverse perspectives on grading exams and papers, assessing student participation, and providing (often-overlooked) feedback and clarification of grades. These ideas are applicable to grading and assessment in many disciplines, including CS.

Cumulative learning and synthesis are essential educational practices. It would be very hard for CS students to succeed by studying the course units in isolation; they must make broader connections to the practice of computing. In reading Grading Strategies for the College Classroom, I therefore found the article entitled "Cumulative Exams" of particular relevance. It reported an analysis of exam performance in two sections of a course, in which one section received a unit exam and the other received a cumulative exam. The authors emphasized that although students were more comfortable with unit exams, cumulative examinations motivated them "to engage in behaviors that promote better performance and long-term retention."

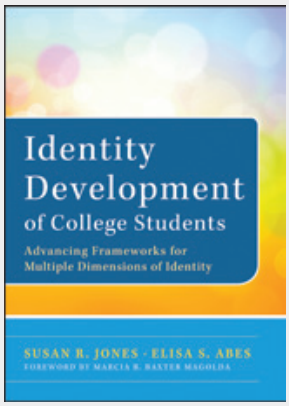
Other articles, such as "A Different Kind of Final," "Testing Learning, Not Anxiety," and "An Electronic Leap: Web-based Quizzes," discuss different approaches to testing. In particular, the article "Rethinking Assessment" examines project-based exams and points out that "project assignments make course content more realistic." These require students to utilize course material and develop team-work skills.

My own final projects require that students engage in a process of synthesis, for which the mastery of topics covered throughout the course is a prerequisite. I make sure that the project description spans the majority of the topics we have studied. I usually discuss the project proposals with students individually and meet with them as they prepare the project. This approach connects assessment and guidance, providing a more iterative and structured development cycle for the project.

In general, students can self-assess the level of their accomplishment because they need to envision the final form of the project and articulate it in their proposals. If they work incrementally, they can test and see whether they have accomplished their goals at each step. This affixes a reflective component to project assignments, as the author of "The Reflective Final" discusses. This approach is predicated on transformative learning, which identifies a culminating or a capstone experience as a critical component. The author applies this principle more narrowly for a single course and asks students to create new work that applies to their own life situations. "The resulting reflective final allows the students to use what they've studied to create something of their own." This type of experience not only promotes taking ownership, but fosters independent thinking and self-reliance, which are essential for computer scientists in their careers.

Our hope as educators is that the totality of coursework forms a structure in which students can learn a large set of topics and, in the process, internalize the general practices of the discipline. In this sense, assignments are effective if students understand the principles that undergird the discipline, acquire skills through practice, and retain their learning in the long term. Cumulative learning and reflective assessments contribute to each of these goals, by providing students with opportunities to acquire, integrate, and apply disciplinary concepts in their assignments. The many different strategies discussed in the three dozen articles in this book can be used as a springboard for revisiting our own grading philosophy and our methods for achieving our educational goals.

—Ozgur Izmirli



Identity Development of College Students, Advancing Frameworks for Multiple Dimensions of Identity

Susan R. Jones and Elisa S. Abes. San Francisco: Jossey-Bass, 2013.

What contextual, situational, and core features interact in the development of identity? Further, how do researchers study/measure a concept that has so many interacting and changing components? Susan Jones and Elisa Abes set out to address these questions in their book, *Identity Development of College Students.* Jones, creator of the Model of Multiple Dimensions of Identity (MMDI) and Abes, a co-creator of the Reconceptualized Model of Multiple Dimensions of Identity (RMMDI) joined forces to present a well-written collection of narratives, theories, models, research studies, and findings on identity development.

The organization of this book makes it a fascinating read. It begins with personal narratives from each author, describing their "story" and what drove them to study identity. Next, the authors summarize central theories and perspectives about identity in college

students. Theorists from the fields of sociology, developmental psychology, cultural studies and social psychology are compared in true interdisciplinary style. Theoretical frameworks, such as intersectionality, critical race theory, and critical queer theory are then discussed, followed by a section about the implementation of these models and theories across disciplines.

I was particularly interested in the chapter titled, "Multiple Social Identities and Intersecting Identities," as it described the scholarship that led to the MMDI. This model suggests that identity consists of a core, made up of personal components, which is intertwined with additional interacting social identities, such as one's religion, gender, race, and sexual orientation. Some identities may be more valued or salient to an individual and will therefore be a stronger feature of their personal identity. In addition to core and social factors, Jones' MMDI keeps context in mind. Biological predispositions, family background, life experiences, future aspirations, and social settings are all elements that must be considered. Jones points out that her model represents "a more fluid and dynamic portrayal of identity" (p. 55). In addition to a thorough summary of the model, this chapter explains the hypotheses, methods and results of the original study (Jones 1995) that led to the creation of MMDI. Narratives from participants, college students across the U.S., are fascinating.

I recommend this book for its thorough overview and exploration of what it means to be an individual. College is often marked by self-discovery—Who am I? What do I stand for? Susan Jones and Elisa Abes explain the process and components that contribute to an answer. This book would be an exceptional resource for psychology, sociology, human development, religion, race, sexual orientation, and gender courses of varying levels. Jones and Abes describe how their framework has been applied by universities and organizations around the world in classes, research, and advising; and in staff, faculty and student development training. They also describe its effectiveness in diversity-focused courses, intergroup discussions and service-learning programs. After reading this book, I will be incorporating Jones and Abes framework into my coverage of development and identity in my Introduction to Psychology course to provide an opportunity for self-reflective conversation about the roles that social, cultural, and biological factors play in shaping who we are.

—Jillian C. Marshall

Making Scientists, Six Principles for Effective College Teaching

Greg Light and Marina Micari. Cambridge, MA: Harvard University Press, 2013.

In a traditional lecture, one student said, "The information goes from the professor's voice to the paper. That's as far it goes – it never really sinks in." And if students can make the grade with just a surface understanding, they will not put in the effort to go deeper. Thus it is imperative to use engaged learning, encouraging students to apply concepts, solve complex problems, and become independent life-long learners. Yet this also requires building confidence in students, providing support through support from peers and faculty. "Forums" for sharing ideas and "studio" classes for problem-based activities are essential to developing students' content knowledge and critical thinking.

Making Scientists examines just such a set of programs and resources, the Gateway Science Workshop (GSW). Established by Northwestern University faculty, the GWS helped first year and sophomore students enrolled in Science, Technology, Engineering and Mathematics (STEM) classes. The Workshop was centered around the following principles of teaching: facilitating deep learning, engaging problems, connecting with peers, learning with mentors, and connecting with peers. In addition to attending a lecture class, the participating students enrolled in a peer-mentored workshop that met two hours a week, with five to seven fellow students. Students worked on challenging questions during these workshops, guided by trained peer-mentors. Students spent more time studying, were free to make mistakes, learned from their peers, engaged in deeper learning, and received positive feedback.

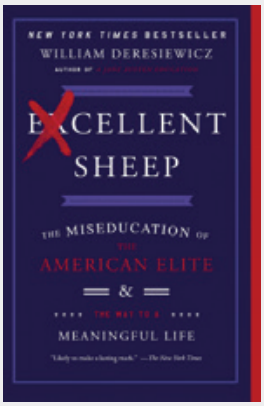
The Northwestern approach contrasts with many universities, which offer tutoring sessions for students whose grades are suffering – a strategy that often results in some stigma, especially among underrepresented students. (Notably, Connecticut College has rejected this strategy, encouraging students of all abilities, at all course levels, in all disciplines to consult with the Academic Resource Center.) The students participating in the GSW workshops continued in the science program and earned a half-grade better than those who did not participate. The difference was even greater for minority students. Across 10 years of workshops, 81% percent of students completed three-quarters of their biology course sequence, compared to 65% of non-participating students. For first-year chemistry and organic chemistry students, the effect was similarly pronounced (66% and 62% vs. 44% and 52%).

In addition to peer mentoring, the authors are strong advocates of problem-based learning. They stress that this approach to learning engages students, but requires careful preparation. Their recommendations include focusing problem-solving on concepts (rather than procedures or formulas); designing the problem to have multiple parts, of varying difficulty and with diverse methods for solving. Counter-intuitive-

ly, Light and Micari recommend having the hardest questions at the beginning of the problem set, to ensure that these are always addressed.

As you think about the balance between content, coverage, and engagement in your course syllabus, consider the learning that can be facilitated through peer mentoring and through problem solving.

—*Sardha Suriyapperuma*



Excellent Sheep, The Miseducation of the American Elite and the Way to a Meaningful Life

William Deresiewicz. New York: Free Press, 2014.

"This book, in many ways, is a letter to my twenty-year-old self. It talks about the kinds of things I wish that someone had encouraged me to think about when I was going to college—such as what the point of college might be in the first place."

With these words, William Deresiewicz begins his harsh critique of the elite university system: the process by which high school students are pushed to overachieve in order to get in to top-tier universities; how they hurl headlong through their four years at college without really considering fundamental questions such as who they are and what makes their lives meaningful; and how this affects our country's leaders and institutions. But along the way, he makes a passionate argument for the importance of a liberal arts education, and this was the part of his book that I found most compelling.

Deresiewicz speaks of the importance of students being exposed to many different fields and ways of thinking. "You concentrate in one field, but you get exposure to a range of others. You don't just learn to think; you learn that there are different ways to think." By being introduced to the same ideas in different disciplines—the nature of reality as seen by philosophers and physicists; how human emotions are described by the novelist and the psychologist—"you learn to educate yourself."

Do you need to specialize in some field in order to get a job and make money? Of course, Deresiewicz says. But having a liberal arts education will make one's profession more meaningful, by placing it in the context of the world. And these two aspects—specialization in one discipline (i.e. your major) and breadth of exposure to many (general education)—should not be seen as polar opposites that jostle disjointedly on a student's transcript. "[The] ultimate idea of a liberal arts education is to render that distinction meaningless. There isn't life over here and work over there, general courses for the first and your major for the second. The perspectives that you get from studying the general—the wisdom, to come right out and say the word—are meant to interpenetrate the practice of your specialty."

At Connecticut College, we are in the midst of a discussion as to how we can help our students obtain this larger world-view, this breadth of knowledge that will help the future citizens of the world find larger meaning in what they do and greater understanding in how their fellow citizens think.

There were several parts of Deresiewicz's book that did not resonate with me; when raging against the elite education system that he claims is serving our youth so badly, his one-sided anecdotes often left me more frustrated with him than with the state of our country as he sees it. But his paean to the ideals of the liberal arts, and how they can help us become not only better professionals but better human beings—I found these passages to be beautiful, meaningful, and inspiring.

—*Michael Weinstein*

Professors Ben Williams, Natalie Avalos, Michelle Neely, and Rachel Black at a recent CTL Class of '57 Teaching Seminar discussion.

› Waiting on the **CTL Shelves**

Ask For It, How Women Can Use the Power of Negotiation to Get What They Really Want

Linda Babcock and Sara Laschever. New York: Bantam Books, 2008.

Like other how-to-negotiate books for women, this volume offers a mixture of research and personal experience, encouraging women to be more assertive in pursuit of their career aspirations. Work relationships, promotions, and salaries are all prioritized. The authors offer strategies for diagnosing and eliminating undue modesty, for dispatching with insecurity in its many forms, and for correcting common communication flaws. This is an accessible book, with solid recommendations and a positive outlook. Think of it as an affirming antidote to exasperation, frustration, or annoyance, though you will have to turn elsewhere for advice specific to academia.

Assessing and Improving Your Teaching, Strategies and Rubrics for Faculty Growth and Student Learning

Phyllis Blumberg. San Francisco: Jossey-Bass, 2014.

Blumberg provides a step-by-step guide to self-reflection, evaluation, and documentation of teaching. This is a book that will be helpful to new and to established teacher-scholars, because it carefully defines, explains, and persuades its reader of the usefulness of evidenced-based strategies for self- and institutional assessments. For those who will be preparing, overseeing, or assessing review files, this volume can be invaluable – it provides the language, logic, and even the lists to present a teacher-scholar's creativity to audiences beyond our discipline and our College.

Teaching for Critical Thinking, Tools and Techniques to Help Students Question Their Assumptions

Stephen D. Brookfield. San Francisco: Jossey-Bass, 2012.

Brookfield links theory to practice in a book that is accessible and readable, drawing heavily on his experience as a teacher-scholar in undergraduate classrooms and faculty workshops. He defines critical thinking as "hunting assumptions," "checking assumptions," "seeing things from different viewpoints," and "taking informed action." Understanding critical thinking as life-giving and empowering, Brookfield rejects notions that it is inherently negative, relativistic, wholly abstract, wholly cognitive, or "politically correct." If you are finding students reluctant to ask questions or to offer their own opinions, this is a book that will help you in preparing lectures, crafting questions, and facilitating discussions.

Reviewers

Robert Askins is the recipient of College's Helen B. Regan Faculty Leadership Award and its Nancy Batson Nisbet Rash Research Award. A prolific writer, he has published in *Science, Condor, and The Proceedings of the National Academy of Sciences,* among others; he has also published two books with Yale University Press. Collaborating with his students, Professor Askins is currently researching the ecology of migratory songbirds.

Ozgur Izmirli is an associate professor of computer science. His research explores new technologies to help create, understand, analyze, organize, experience and perform works in the arts with a focus on music; he has given numerous conference presentations and has published extensively. His courses include Multimedia; Sound Processing; Web Technologies; Computer Organization and Networks.

Jillian C. Marshall graduated from Connecticut College with a Master of Arts in psychology in 2012, and embarked on a new role at the College as a lecturer. Her research focuses on the impact of stress on memory formation and spatial learning; she is also interested in the factors that affect circadian rhythms and sleep architecture. Her courses include Introduction to Psychology and psychology laboratories.

Sardha Suriyapperuma is a senior lecturer and lab instructor in the biology and botany departments. She teaches cell and molecular biology laboratories, organisms laboratories, general microbiology, and freshman seminar; and is participating in the public health integrative pathway in the Connections program. She has also served on the Self-Designed Independent Majors and Minors Committee.

Michael Weinstein is a senior lecturer in physics and astronomy. His teaching is distinguished by active learning. He teaches first-year studio physics courses; and he teaches lectures and conducts laboratories for non-science majors.

Letter from the Director

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ply their on-campus learning in a local or global context; and through a student's integrative capstone while sharing their work with the campus community. Our Connections Curriculum is about connecting with students, helping them connect to the ideas and values that we are passionate about, as well as constructing opportunities in our classrooms, labs, and studios for students to connect with each other.

And, it turns out, these relationships, these connections, are a key to effective and long-lasting learning. The most recent research—from the Wabash National Study, on the neuropsychology of learning—suggests that the emotional state of the learner is perhaps the most important (and often underestimated) component when it comes to education. Creating the conditions in which students can and want to learn is all about *establishing a space where people feel connected:* where students sense that the faculty member cares deeply about their learning; where we share the excitement about the intellectual content of the course; and where students and faculty get to know and support each other in their learning. Fostering these connections with and among your students creates brave and compassionate spaces where all students can learn and participate fully.

In many ways, our new Connections Curriculum takes what is already best about a Connecticut College education and scales it up, makes it more visible. The following pages of the *CTL Magazine* make visible much of the great, engaged, connected teaching already happening on our campus; I hope you enjoy reading about those connections to learning that we all have in common.

Best,
Michael

Michael Reder
Director, The Joy Shechtman Mankoff Center for Teaching & Learning

Engaging the Data

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ture Work," funded by the Arthur Vining Davis Foundation. Participants—including Bates, William and Mary, and Oberlin—will explore how these key educational experiences can become "essential and expected, rather than available and optional." This multi-year project fits well into on-going efforts to refine and study the results of our newly created Connections curriculum.

The accompanying figure gives insight into the types of culminating experiences our students report. Now, we need to look more deeply into which of these meet the standards set in the reports, recommendations, and funding statements of the AAC&U, Carnegie Foundation, and Arthur Vining Davis Foundation. Ideally and ultimately, as the curricular reforms progress, the integrative capstone experience will facilitate reflective conversation and writings, encompassing each student's major, Integrative Pathway, and overall liberal arts education. When that happens, we will be fulfilling the goals and realizing the intellectual potential of Connections.

—John Nugent

AAC&U, "Signature Work," Available at https://www.aacu.org/sites/default/files/files/LEAP/LEAPChallengeSignatureWork.pdf.

AAC&U, "Capstones & Signature Work," Available at https://www.aacu.org/signaturework.

No Two REF Events Are Ever Alike

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On occasion, conversations branch off in ways never expected and you come away having learned much more than originally expected. The most recent example was a REF on micro-aggressions last semester. Organizers assumed that the conversation would center on race, but it became a broader discussion. The room was filled with faculty, staff, community members, and students. In addition to racial micro-aggressions, we found ourselves listening to stories about the condescending treatment many staff members, especially women, face daily from faculty, students, and their supervisors. We learned about the dismissive comments faced by people struggling with depression; the sideward smirks encountered by individuals as they leave the LGTBQ Center or the lack of awareness about the struggles that differently able members of the community face when there is no ramp or lighting is inadequate. From these shared stories emerged a rich conversation about the complexities of micro-aggressions and why so many face them every day.

REF is special because it's about sharing stories and, in the process, learning a bit more about ourselves.

—Ron Flores

Participating in a Professional Conference via Skype

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the conference. It provided them with important skills, which they also used in designing and making their presentations for our course, and it gave them some ownership of the event. I also helped students get a sense of my own preparations for the keynote. I had them read a related. submitted article and I provided them with the Prezi that accompanied my talk, in advance. I wanted them to see me going through the process of developing this talk, so that they could see how I went about organizing myself. Many of the seminar students were seniors, coming to the end of their years at the College, and this was a way of helping them to further prepare for the next stage in their careers.

Attending the Conference… and After

My students participated in the entire morning session, so I brought them each a conference program for their own records. This was an Africana Studies conference, which influenced its elements. For example, the conference opened with an elder asking permission to proceed, and then inviting the

Creator and welcoming the spirit of our ancestors into the conference. Students had not expected that these kinds of preliminaries would be given at an academic conference, conducted at a university. But this was consistent with Africana ways of holding a meeting. Rather than voting to begin, we seek out the wisdom of the eldest members to let us know that we have their blessings to begin the work at hand. We had been reading about these values and practices in class as related to collectivist cultures.

Students saw me a little differently after the conference. I wasn't "just" their college professor – I also was a "celebrity" scholar, as they affectionately chimed to me via text. They had observed how intently other scholars at the conference listened to me and thought about my ideas. They were proud of me, and I was proud of them. I really felt that they were present at the conference. Their texts and post-conference class discussions showed that they were genuinely excited about and engaged with the conference. They felt that they had actually attended the conference. My students definitely had a lot to say in class. It was one of the most exciting times in my teaching career.

—Michelle Dunlap

How to Develop, Design, & Present a Poster Successfully

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contrasting old and new, then consider dividing your poster into left and right opposing segments.

Simplicity is essential, especially for more complex ideas and presentations. Avoid "weird" fonts, proofread very carefully; and avoid unfamiliar jargon, acronyms, and abbreviations.

The Presentation: Practice!

Have two-, five- and ten-minute versions of your presentation.

Welcome people and thank them for their interest. Avoid standing in front of your poster. Maintain eye contact, checking to see whether your audience understands your more complex points. Always be professional.

Don't substitute a handout for engaging with the audience. A good handout is "only" a take-away that reinforces your message.

Be prepared to start at any point on your poster, as you never know what phrase, visual, or concept will draw the attention of your audience. Build on their interest!

—Noel Garrett

The Evolution of Community Learning

Continued from page 23

the students and the conservancy. The partnership fosters environmental stewardship and gives students a sense of accomplishment.

The connection between Avalonia and campus has been growing. With generations of GNCE students moving through the course, it was natural to add peer-to-peer mentoring. OVCS has established work study positions with Avalonia. For three years, now, the varsity track team has volunteered over spring break, removing invasives. Student blogs and social media projects are publicizing Avalonia far and wide. One of Avalonia's greatest needs is next-generation involvement, so they are very happy to see this growth.

Project Management and Skill Building

Project management must be experienced to be learned. When students conceive, design, carry out, complete, and present their projects, they gain a sense of ownership and commitment. Time management, realistic expectations (of the self and of others), communication skills, perseverance, and team-building are tested and refined.

Requiring students to set goals, identify steps, list resources (people and materials) needed, define a timeline and commit to specific deliverables instills responsibility. A mid-semester progress report and a final project presentation—the latter delivered before the entire Center and Avalonia membership—are additional, firm goals. During the semester, feedback from myself and from peers holds each each student accountable.

Still, the course schedule, projects, and players are never static. In some semesters, the weather does not cooperate, and the late snows hinder or prevent place-based projects. When this happens, I work with students to develop their skills, interests, and projects. I have also added a creative requirement to the group presentation. Last year, students performed a series of haikus. It was funny and deeply moving to see all the students had learned and reflected upon, and it was the perfect culmination to the semester.

—Jennifer Pagach

"What Is Service Learning?" National Youth Leadership Council. Available at https://nylc.org/service-learning/.

"Definition of Service Learning." Office of Civic Engagement and Service Learning, Fayetteville State University. Available at http://www.uncfsu.edu/civic-engagement/service-learning/definition-of-service-learning.

"Global Service Learning, Learning and Assessment." Campus Compact. Available at http://compact.org/?s=service+learning.

BACK COVER: Teaching & learning at Connecticut College across the generations: An early classroom in New London Hall (top left); Professor Charles Chu and a student confer over lunch (top right); students in the College's first bookstore (center, circle); Professor Perry's dance studio class (middle left); Professor Decker's classroom (middle right); a present-day botany lab (lower left); and Professor William Meredith hosts tea (lower right).


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