In January’s report, *Helping UW Students Prepare for Life after Graduation: It Takes All of Us*, we examined a question that many University of Washington students, faculty, staff, and parents have been asking: How can the UW help undergraduate students focus on intellectual growth and also help them prepare for their next steps, whether service, graduate or professional school, or launching a career? Since then we’ve heard from many of you via email, focus groups, forums, and interviews, and discovered creative teaching and learning work already taking place around the UW’s three campuses. This report profiles some of these faculty and staff innovators among us.

National data suggest that faculty have a key role to play in not only instilling expertise in the major, but also helping students integrate their learning experiences. Students report higher levels of engagement in their major when they can articulate the connections between their passions, ambitions, and coursework. Integrating learning on both sides of the classroom door is not only good teaching; it also helps address equity issues that persist in higher education by supporting student success and retention, especially among underrepresented minority students.

Susan Terry, Director of the Career Center at UW Seattle, points out that making the connection between academic work and professional applications explicit to students is key. Says Terry, “Our students are so capable we often assume they know how to articulate their education, strengths, and skills to employers. But many do not.” When students leave our campuses with this ability, they are more likely to find success, making this issue central to the university’s role as an engine of social mobility, social change, and economic growth in our region.

In this report, innovative UW instructors and staff members share strategies for helping students understand connections between classroom learning and life after graduation, and for developing skills that the American Association of Colleges and Universities (AAC&U) call “essential learning outcomes,” such as the ability to work in teams, think critically, reason about ethical issues, and solve complex problems.

Innovators Among Us: Preparing Students for Life after Graduation

May 2014

In this report, innovative UW instructors and staff members share strategies for helping students understand connections between classroom learning and life after graduation, and for developing skills that the American Association of Colleges and Universities (AAC&U) call “essential learning outcomes,” such as the ability to work in teams, think critically, reason about ethical issues, and solve complex problems.

Featured Faculty & Staff
Erin Hill
Randy Beam
Rebecca Price
Jana Mohr Lone and Sara Goering
Jim Gawel
Holly Barker
Mary Pat Wenderoth
Jennifer Turns
Divya McMillin
Ratnesh Nagda
Bruce Burgett, Kim Wilson, David Parker Brown, and Wadiya Udell
Susan Terry and Briana Randall
Teaching Teamwork…Explicitly

Undergraduate students often complain about working in teams and many claim to hate group projects. However, well-structured group work can improve student engagement, deepen learning, and help students build essential skills for their professional and personal lives. Because workplaces are increasingly collaborative, employers look for candidates with a demonstrated ability to work well in diverse teams. Teamwork skills also help graduates become successful leaders and collaborators in their communities. Although students are often asked to work in groups, few have been taught how to do so effectively. UW faculty such as Erin Hill and Randy Beam are trying to change this pattern. They explicitly teach teamwork skills in class. In doing so, they help students develop skills essential both in college and after graduation. In addition to the strategies profiled below, teamwork techniques used by Hill and Beam are described in a “Teaching Teamwork” video, available on the 2y2d Initiative website.

Erin Hill: Shuffling roles to improve group learning

Exercises that help students comprehend physics are also improving their ability to work in groups. Erin Hill was motivated to redesign her physics class after seeing the success of peer-tutoring in the Quantitative Skills Center, where she is the director. She saw potential to engage all of her students, not just the top ten percent, by having students tackle physics problems in groups. Hill was also motivated by a growing body of research indicating that active learning can also increase student comprehension of course material.

Her hopes have been realized. More students are correctly answering in-class questions about physics concepts and students report that they find the group work useful. “They also seem more invested,” says Hill. “The few times that class ended before we were able to have a full discussion of the question students were tackling in their groups, there was a collective sound of disappointment from the class.” Here are her principles for in-class group learning:

Randomize group assignments and responsibilities with playing cards: At the beginning of each class, students draw a card from a deck of playing cards to learn their group and role assignments, which change each class session. The number on the card assigns a group and the suit assigns one of four roles:
- Equity monitors make sure everyone is involved in the group discussion.
- Facilitators keep the group on task.
- Resource monitors identify the need for additional resources, such as the course textbook, internet, or instructor.
- Product monitors make sure all ideas have been recorded on the group’s whiteboard.

“To reinforce that students should be working in their groups I have a second deck of identical playing cards I use to cold-call on the students,” says Hill. “It’s nice and randomized. If I draw the three of diamonds, I ask who has the three of diamonds, call on that person and ask, ‘What has your group been talking about? What did you come up with for this problem or question?’”

Capture collaborative work on white boards: Each group has a table-top whiteboard for sketching out its solutions to problems. Hill blends this low-tech approach with high-tech tools, taking photographs of solutions with her tablet so they can be projected on a large screen, allowing her to make side-by-side comparisons of student work, to overlay her own annotations over student work, and to have students explain their work and reasoning to the class.

Resources: To develop these techniques, Hill worked with her colleague Robin Angotti, Associate Professor of Education, UW Bothell, and drew ideas from: Elizabeth Cohen and Rachel Lotan, Designing Groupwork: Strategies for the Heterogeneous Classroom, 3rd ed. (New York: Teachers College Press, 2014).
Randy Beam: Supporting team success in long-term projects

Take Randy Beam’s class and you’ll be graded on your grasp of communication theory and your ability to function in a team. Beam added theory and practice in teamwork to his syllabi after realizing that his students have a lot of experience—but not necessarily a lot of success—working in groups. He decided, “If I was going to ask students to work in a group, I needed to provide some guidance on how to do that in an effective and efficient way. That’s why I put together a teamwork system that I follow. I call it a system deliberately. It’s not just about having a policy on slackers or just devoting a session to training on group processes. You do all these things because they are mutually reinforcing.” Beam has used this system in several classes, including one with over 400 students who work on term-long group projects during Friday discussion sessions. Here are his principles for guiding student groups:

**Provide explicit instruction in team dynamics:** Students read excerpts from *Working in Groups* by Engleberg and Wynn and spend a discussion session on exercises to establish expectations and norms for their group’s collaborative work. They discuss how the project fits into their competing priorities—and how their priorities impact their commitment levels and responsibilities to the team. Most importantly, they establish operating guidelines for working together: how they will make decisions, divide and submit the work, voice concerns, resolve differences, and ensure performance. They also decide how they would modify these guidelines if they find mid-quarter that they are no longer working well as a team.

**Monitor progress on group projects:** Beam and his TAs check in regularly with groups to ensure they are working well together. In addition, groups submit regular progress reports, meeting notes, and drafts. “You have to be there for the students. You have to encourage them to work well together and to troubleshoot problems that they might have in a group,” he says.

**Make team performance count with a slacker policy:** A high-stakes policy includes specific, automatic triggers that can cause a student to be removed from a team. The policy also allows groups to request the removal of a member, for example, a student who is not following group guidelines or contributing as agreed to group work. Students who have been removed then have to complete the project on their own. Beam includes the policy in the course outline, as well as explaining in class the actions that will trigger removal from a group.

**Ask students to reflect and evaluate their team’s work:** At the end of the term, students complete a self-evaluation, as well as peer evaluations to reflect on the experience working as a team. In the peer evaluations, Beam asks students to estimate the percentage of work performed by each team member.


“I kept hearing from people in the business world: ‘Teach students how to work effectively with each other; teach them how to work in groups.’”

Randy Beam, Professor, Communication, UW Seattle
Thinking Critically in the Classroom and Beyond

The ability to think critically enables UW graduates to be capable problem-solvers and thoughtful world citizens. It also helps them get jobs, a fact often lost in the ongoing debate about the relevance of a college education. However, surveys of parents, prospective students, and the general public indicate that most people see a degree as a means either to get a job, or to get a better job. These data may seem at odds, but surveys also show that employers prioritize critical thinking and problem-solving skills in hiring and promotion decisions. All students practice these skills in their majors when they define problems; evaluate multiple perspectives; and offer solutions, arguments, or claims based on evidence. Yet undergraduates are often unaware of how their class assignments help them develop these abilities. Faculty can help students make these connections by discussing the skills they model and that students are practicing, or by explicitly teaching skills, whether general concepts about effective ways to approach new information or discipline-specific skills, such as how to approach a problem like a biologist, philosopher, or art historian.

UW faculty such as Rebecca Price, Jana Mohr Lone, and Sara Goering are challenging students to do just that—to ask questions, be creative, and cultivate reasoning skills that will become life-long assets.

Rebecca Price: Teaching with open-ended inquiry

Rebecca Price’s students learn how to develop research questions through open-ended projects, from measuring skulls to analyzing sculpture. Price received an award from *Science* magazine for a week-long exercise in which students measure reproductions of ancient and modern human and primate skulls to test ideas about human evolution. Changes in these activities reflect Price’s own evolution away from what she calls “recipe-based” activities. Initially, she told students what areas of the skulls to measure. Now she requires students to decide what to measure on their own.

“The long-term benefits are extraordinarily wonderful. I see students who can collect data and use those data to change their interpretation of a scientific hypothesis. That’s success,” says Price. Here are her principles for open-ended assignments:

**Practice inquiry by tossing the answer sheet:** Now Price has decided that even the skill-measuring activity is a bit too scripted because she knows the correct answer to the exercise. She has developed open-ended exercises for her classes “Science Methods and Practice” (BES 301) and “The Visual Art of Biology” (BIS 382) where students use databases to test hypotheses. In the methods course, Price says, “I mix up the databases every time I teach this course so the students keep asking new questions. It keeps it interesting for me.” In the arts class, students develop their own database of artwork to construct their own definition of what is—and what isn’t—bioart.

**Don’t worry about running out of questions:** Students, who work in groups in the methods class and individually in the arts class, are required to study the relevant literature and develop novel questions. There has never been a problem with duplicates. “That’s what’s so exciting about scholarship. We never run out of questions,” says Price. She groups students with similar queries “so they can share the literature, review each other’s work, and really support each other.”

**Give students room to be creative, but provide explicit expectations:** Price helps students construct their own requirements for an assignment, for example, analyzing scientific literature to identify the rules for writing scientifically.

**Help students think about ways they might refine the inquiry they began in class:** Students in a previous class produced such good case studies on using data to understand climate change that Price suggested they publish their work. One student took up Price on her offer, persevering through years of research and revision until the case study was published by the National Center for Case Study Teaching in Science (accompanying teaching notes provide detailed how-tos for K-12 instructors).

**Resources:** Rebecca Price, “How We Got Here: An Inquiry-Based Activity About Human Evolution,” *Science*, 12 December 2012; winner of the *Science Prize for Inquiry-Based Instruction*.

“*The trick is to use ideas from other fields to enhance the way we teach scholarship and critical thinking within our own disciplines. I was on a review panel for the University’s Library Research Award for Undergraduates, and I was impressed by the way students who had done archival research crafted sophisticated arguments and used evidence. Since then my approach to teaching biology has been influenced by discussions with historians.*

*Rebecca Price, Associate Professor, Interdisciplinary Arts and Sciences, UW Bothell*
Jana Mohr Lone and Sara Goering: Helping students learn to think by leading discussions with peers, and with children

Jana Mohr Lone and Sara Goering help UW students think deeply, from multiple perspectives, and with an open-minded spirit of inquiry. In turn, their UW students help K-12 children do the same. Lone got the inspiration for this model when her own son turned four and began asking challenging questions, such as, “How can you be happy and sad at the same time?” Lone ventured into her son’s kindergarten class to discuss philosophical issues and now she and her team bring similar discussions—and the ability to facilitate them with children—to UW undergraduate students.

At the UW Center for Philosophy for Children, Lone and Goering help UW undergraduates taking Pipeline Project seminars and the “Philosophy for Children” course (PHIL 205) learn how to constructively discuss ideas by asking probing questions, listening carefully, and arguing rationally and with an open mind. These are skills student can put to practice in life and work—talking politics with friends, resolving a personal dilemma, developing a team’s vision, or responding when a child asks, “Is it always wrong to lie?” Here are some of their techniques and principles:

Help students learn by watching, then doing, then leading: The team models critical-thinking in dialogue through a staged process in UW and K-12 classes.

- UW students engage in faculty-led discussions that model advanced critical thinking skills, then practice facilitating similar discussions with peers.
- Students next watch faculty lead discussions with K-12 students in local schools, learning questioning techniques through careful observation. Lone and Goering model how to prompt discussion using children’s books. *Frog and Toad are Friends*, for example, can inspire thoughtful conversation about the nature of friendship.
- Finally, the students lead discussions with the children, first as a co-facilitator with faculty, then on their own.

Start with the question, not the answer: Goering introduces new content by asking questions. “For us as faculty, this means giving up a little control over students needing to know X, Y, and Z and presenting them with interesting questions first. That builds their thinking skills and primes them to grasp X, Y, and Z when the time comes.” In turn, UW students learn to start discussions with questions to engage their K-12 students.

Stress the importance of listening—really listening: The team asks UW students to listen carefully to what is actually being said in discussion, instead of planning what they’ll say next or only paying attention to what they expect to hear.

Create opportunities for students to lead discussion: Goering thinks some of the deepest learning occurs when students practice leading a group. She says, “They have to think about everyone’s thinking, not just their own, about how to direct conversations, to ask good questions, press for explanations, and build on the ideas of others. These are important skills in the world.”

Cultivate multiple ways of thinking and skills that cross disciplines: The program aims to cultivate three kinds of skills, both in UW and K-12 students.

- Cognitive skills: critical thinking and sharp analytical reasoning
- Social skills: respecting others, listening carefully, and appropriate group participation
- Philosophical skills: grappling with the enduring questions

“UW students develop greater awareness of all three as they lead discussions that develop these same skills in children,” says Goering.

Mentoring Undergraduates in Research

If current projections hold, recent graduates may change jobs ten times or more in their lives, and may work in careers that don't yet exist. Experience in academic research will help students meet these challenges, because the ability to reinvent oneself is essentially a research skill. Faculty throughout the UW's three campuses are working to involve not just graduate students, but also undergraduates in academic research projects that can help them build critical skills, such as the ability to gather, analyze, and synthesize complex information on a new topic; to determine needs for new knowledge; and then to help create that knowledge. Working on real-world problems with faculty mentors also helps students build the confidence that they, too, can make an impact. UW faculty such as Jim Gawel and Holly Barker treat their undergraduate students as emerging professionals, supporting them as they experience what it means to contribute to a scholarly field and to the community.

Jim Gawel: Focusing on real-world research

Jim Gawel engages his students in undergraduate research at UW Tacoma by explicitly linking academic work to the world outside the classroom. In addition to providing opportunities for study abroad and service learning, Gawel also creates assignments in his environmental science classes that result in real-world products with clear benefits for residents of Washington state. Here are some of his suggestions for class assignments:

**Structure assignments to produce real-world results:** Gawel sets up projects for end users who need the data students can provide, such as a report on possible green projects for UW Tacoma's Facilities Services team, or a study for the local parks department. “Amazingly, even though students care about their grade, they couldn’t care less what I think about their project,” he says. “I find that if they know that it’s going to somebody outside the university, or even someone in another department of the university, they end up paying a lot more attention to what they’re doing, and in the process, they actually learn the material better.”

**Show undergraduate researchers that they can make an impact:** Students not only contribute to Gawel’s projects, which often result in journal publications, but they also conduct their own studies with real-world impact. For example, his undergraduates have conducted studies of water quality in western Washington lakes. Because the state has cut lake-monitoring programs due to budget concerns, this undergraduate research fills an important need. “In some cases we’ve done studies that we deliver to the parks, but often citizen groups use our data to try to get action from the state or parks,” says Gawel. “We try to deliver to people that matter, but a lot of times it’s folks we didn’t even think about who end up getting a hold of our reports via Google and contacting me later.”

**Resources:** Past projects by Gawel’s students are described in the 2012 UW Tacoma report “Innovations in Teaching and Learning.” Local media have covered the public health implications of heavy-metal contamination in Washington lakes, as reported in studies co-authored by Gawel and his students.

“I feel like it’s a major part of what I’m supposed to be doing—involve students in my research not just to get research done but so they actually learn how to do science and how to work with people outside of the classroom.”

Jim Gawel, Associate Professor, Interdisciplinary Arts and Sciences, UW Tacoma

At right, undergraduate researchers collect nutrient samples and measure stream flow for a ‘real-life’ deliverable, a study of Spirit Lake in Mount St. Helens National Monument, Washington. Photo by Heather Jennings.
Holly Barker: Mentoring undergraduate researchers as they identify their strengths, passions, and goals

Often faculty struggle to find time to support undergraduate researchers. Through structured office hours and group projects, Holly Barker not only mentors students in a wide range of disciplines herself, but helps her students mentor each other. This support helps her students succeed in individual and group research, with many presenting at the annual Undergraduate Research Symposium. Here are some of the techniques she uses to mentor undergraduate researchers:

Help students identify and build on prior knowledge: Barker views every student as an expert. She helps students examine their experiences through an academic lens and share those insights with other students. In a recent introductory class, “Culture of the Bomb,” international students translated and presented summaries of news from their home countries. “Korean students talked about tensions between North and South Korea over nuclear issues, and students from Taiwan described the country’s challenges with nuclear waste,” she says. In her “Anthropology of Sports” course, student-athletes share their first-hand knowledge of the opportunities and challenges of being dedicated to both sports and their studies at an institution that excels in both realms.

Guide students to research topics of personal relevance and to research methods that best suit their strengths and goals: Barker has organized independent studies at the Burke Museum where she is a curator, including a study of Pacific Island objects by UW students from the Pacific Islands. “The Burke is a place where students who benefit from hands-on, communal learning thrive,” says Barker.

Trust that students can rise to a challenge: “I now see I can give students more leadership and more freedom academically to demonstrate their learning, that I can trust them to be professional and to do a good job,” Barker says, reflecting on a recent upper-division class that culminated in a public open house on environmental health issues related to the Hanford Nuclear Reservation (“Public Policy and Environmental Health: Hanford,” ANTH 479). When the students were dividing up tasks, such as marketing, emceeing, and leading table discussions, all were eager to contribute. “There was one hundred percent participation in that class, and students were elated with the outcome,” says Barker.

Set clear limits so you still have time for your own research: Barker has clearly delineated office hours for each group of her students. She says, “I try to be very transparent with my students about what my time obligations are when I’m not with them. Letting them know when I have deadlines and other professional obligations also helps them understand the life of an academic, if they’re thinking about graduate school. This way they know that if I don’t have more time for them, it’s not because I don’t care. Rather, time is limited.”

Help students mentor each other: “At the start of every class, as a community-building opportunity, I allow time for student announcements,” says Barker. “Someone might say, ‘I’m working at this place and they’re hiring so if anybody wants a job, let me know.’ Or, ‘My department has a résumé workshop and there’s free pizza.’ Through that kind of sharing, students see each other as resources and mentors, which can reduce the pressure on professors.”

Resources: Seattle Times coverage of Barker’s students working on an independent study at the Burke Museum: Adam Jude, “Three Huskies football players explore their heritage with Burke Museum,” 14 November 2013.
Reflection to Deepen Learning and Self-Awareness

When students reflect on their academic learning and its relationship to their personal and professional goals, they gain a deeper understanding of the course material, as well as a better sense of who they are and where they’re going. They also gain a valuable skill. Employers want to hire people who are self-aware, who know what they know and what they don’t; and graduate admissions committees notice candidates who can share a clear narrative linking their experiences to their future ambitions. Reflection exercises can also benefit faculty. For example, they can use student feedback to fine-tune their teaching. Reflection techniques such as those used by Mary Pat Wenderoth and Jennifer Turns can be integrated into courses in any discipline, providing major benefits for students without major investments of faculty time.

Mary Pat Wenderoth: Reflecting through short, easy-to-evaluate writing assignments

Students in Mary Pat Wenderoth's large introductory biology classes write paragraphs each week to help them integrate and remember the concepts they've studied. “To maximize their learning, students need factual knowledge, which we give plenty of, but they also need conceptual frameworks to put the knowledge into,” says Wenderoth. Reflection can help students build those conceptual frameworks, but “most undergraduates don’t do a lot of reflection. They’re glad to get their work done on time, take their test, and get on to the next class or assignment.”

Wenderoth builds reflection into her class by having students write paragraphs on the week’s material. “This gives students an opportunity to write and reflect and it gives me an opportunity to see what they’re actually thinking,” she says. She has also structured reflection so it is useful to the students without requiring a large time commitment on anyone’s part. Here are her basic principles:

**Make reflection part of the class routine:** Students write paragraphs every week. Wenderoth poses questions on Monday; student paragraphs are due Friday.

**Ask questions that let students discuss what’s important to them while achieving learning goals:** Wenderoth asks open-ended questions that help students link facts to a conceptual framework. Examples include: “How does the material you’re learning in class relate to your everyday life?” and, “What topic this week was the hardest for you, something that you’ve thought about and still can’t quite figure out?”

**Motivate students through class credit, but keep evaluation simple:** Writing assignments are part of the final grade (about ten percent). Increasing length doesn’t improve a student’s grade; in fact, Wenderoth requires that submissions be limited to one paragraph. Grades are credit/no credit, based on “good faith effort” to complete the assignment. The class management software Wenderoth uses groups the paragraphs so she can “skim and scroll” through them efficiently and quickly.

**Give regular feedback:** Every Monday, Wenderoth gives feedback to the class as a whole—a few minutes at the beginning of class. She may report that a number of students were having difficulty with a particular concept, and then review it. “I have to show them that I’ve actually sat and read their paragraphs,” she says. “Once or twice I didn’t do that and I saw the quality of their paragraphs go down.”

**Collect student feedback on the exercise:** Wenderoth’s students report that writing reflection paragraphs helps their learning. One wrote, “Some weeks, no matter how much I thought I was paying attention in class, it would be Thursday night, time to start the paragraph, and I’d be thinking ‘Huh? What did I learn this week? Oh yeah….’ which got me to examine what was going on in class and my learning process before the weekend completely wiped everything away.”

**Resources:** Wenderoth learned about low-stakes writing from John Webster, Associate Professor of English at UW Seattle, and the UW Writes resources site, sponsored by the College of Arts and Sciences Writing Program, which he directs. Her teaching methods are featured in Make it Stick: The Science of Successful Learning by Peter C. Brown, Henry L. Roediger III, and Mark A. McDaniel (Cambridge, MA: Harvard University Press, 2014); a free summary is available. Wenderoth has also co-authored a book that shows the value of student reflection on exam performance: Clarissa Dirks, Mary Pat Wenderoth, and Michelle Withers, Assessment in the College Science Classroom (New York: W. H. Freeman & Company, 2014). More details on Wenderoth’s procedures are available in the video “Learning Paragraphs.”
“Helping students make sense of their learning experience is not about faculty doing something differently. It’s about doing just a little bit more to help students reflect on their learning as it happens.”

Jennifer Turns, Director, Consortium to Promote Reflection in Engineering Education, and Professor, Human Centered Design & Engineering, UW Seattle

Jennifer Turns: Cultivating the habit of reflection

Jennifer Turns asks students in every course and nearly every class session to reflect on how the material they’re learning in class relates to their future work. “The one thing you can count on in education is that students will have challenging experiences they will need to reflect on,” says Turns, who co-directs the new Consortium to Promote Reflection in Engineering Education at UW Seattle. “Simply asking, ‘What did you learn from doing this?’ can be powerful.” She adds, “Student responses remind me of issues I had forgotten about and I get ideas from their ideas. I get inspired by my students.” Here are some of her basic principles on reflection, which are applicable for classes in any topic:

Help students reflect through dialogue: Taking just a few minutes to ask a student some personalized questions can be very effective. Turns says, “If a student has been an officer in an organization, the mentor might ask the student, ‘How has being a leader prepared you to be a better learner?’ If the student ventures, ‘Time management?’, then the mentor can say, ‘Time management is a really important skill for learning,’ and then help the student go deeper, perhaps to talk about becoming more tolerant of ambiguity or a little less deferential to authority.” The consortium outlines this process for engineering students in a diagram that can be modified for other disciplines.

Stress that a portfolio is an argument, not an archive: “A portfolio is not a transcript; it’s not a place to recount every experience,” says Turns. “A portfolio is a place to make an argument, where the student says, ‘Of all the things I could tell you, I want to tell you five things: three arguments that are going to make you think that I’m well-prepared to be an X (insert profession of choice) and two that will make you see me as distinctive.’”

Incorporate reflection exercises that are valuable, but don’t take up too much time:

> Choose short, easy activities: Reflection “Mad Libs” take only five minutes at the end of a class session. Students fill in the blanks of a basic question: “From engaging in [experience/activity], I gained [the takeaway], which prepared me for [the future].” Turns leaves the definition of ‘future’ open. “Sometimes their future is the next class, sometimes it’s their current job, or a future career.” She may ask students to draw, rather than write, their responses. “It’s amazing some of the images they can come up with in just five minutes,” she says.

> Create activities that are easy to evaluate: To make an assignment for PechaKucha talks (twenty slides in under seven minutes) more time-efficient, Turns had students post the talks for viewing online so the class didn’t have to sit through them live; and she developed straightforward grading criteria. “I told students if their voice-over sounded professional and their talk included the required components, they’d get an A. This freed them to focus on the topic of the talk—how this class connected to their future.”

Fostering Cultural Understanding Globally and Locally
In our increasingly interconnected world, UW graduates will need to navigate the complexities of working with multidisciplinary teams and engaging with communities other than their own. In this environment, effective communication and collaboration require more than tolerance or respect for difference; knowledge about the world and practice partnering across boundaries will serve our graduates well in their professional and civic roles in a globalizing society. UW professors Divya McMillin and Ratnesh Nagda are preparing their students to succeed and lead in this complex world. McMillin supports students as they grapple with large-scale issues that shape our interdependent world, while Nagda trains students to talk about and across difficult differences.

Divya McMillin: Preparing globally-engaged leaders
Divya McMillin believes that “our world needs big thinkers.” Her goal is to connect students not only to the world outside the classroom, but also to the world at large. She says, “we need to provide the conditions that produce informed and compassionate leaders. Students are eager to build skills and knowledge in global issues.” McMillin keeps student excitement alive by teaching through current world events, recruiting excellent faculty, inviting industry speakers, facilitating experiential learning, and mentoring undergraduate researchers in her own research program in foreign policy and global media studies. Here are some of her guiding principles:

**Emphasize that cultural understanding is a valued skill in diverse professional settings:** McMillin makes it clear to students that employers and graduate programs are keenly interested in candidates who excel above and beyond conventional degree holders. Global competencies and cross-cultural fluency are especially advantageous. “Our core curriculum gives students a sophisticated understanding of the intricacies of global interactions and prepares them for the challenges of a networked society,” says McMillin.

**Discuss global “big questions” to drive improvement in students’ analytical skills:** Deep exploration of world events helps students develop new ways of thinking and requires an understanding and appreciation of cultures. Says McMillin, “Analysis of global flows and conflicts requires lateral thinking, flexibility, inventiveness, and empathy—qualities that are also necessary for students’ personal and professional success. Perhaps it will lead to acts of leadership within their careers—leadership that could change the world.”

**Bring the world into the classroom:** McMillin has created a community-partnered faculty model in the [Global Honors Program](#) at UW Tacoma (which will expand in fall 2014 with the establishment of the Institute for Global Engagement). Under this model, professionals from private and nonprofit organizations guest lecture (sometimes from across the country or the world) or team-teach with university faculty. “This provides an incredible opportunity for professionals to regain the excitement of discovery and to deepen student learning by bringing alive the theory they are learning in the classroom,” says McMillin. The program also helps students build connections to local and global communities through undergraduate research and experiential learning.

**Seek donor contributions to expand access to experiential learning:** The cost of international learning opportunities is often a barrier for UW Tacoma students, more than forty percent of whom are the first in their family to attend college, and many of whom work, support families, and fund their education with grants and loans. To increase access to global learning, the Global Honors Program has facilitated merit awards to each student, and McMillin has developed fully funded international research opportunities. “We have secured private sponsorship to support student-faculty teams for year-long studies,” she says. “The students who do fieldwork abroad then tie their research back to the needs of our local community.”

**Help students learn to navigate a complex world for themselves:** “Students deeply appreciate the dots we connect for them and the autonomy to rearrange those dots in ways that are more meaningful to their lives and careers,” says McMillin. As a result, students remain engaged and enthusiastic, as evidenced by the program’s current one hundred percent retention rate and its highly invested alumni.
Ratnesh Nagda: Talking about and across differences

Ratnesh Nagda not only leads difficult conversations, but also trains students to do so. He directs the Intergroup Dialogue, Education, and Action (IDEA) Center in the School of Social Work, which helps students and community members engage constructively with challenging issues, such as race, gender, nationality, religion, and sexuality. “We have a new set of ‘three Rs’ in education: relevance, relationships, and responsibility,” he says. “If we’re committed to a more just society, the work we do in the classroom has to be relevant to solving major and complex social problems. Talking about and across differences can help us build transformative relationships that cultivate and sustain our responsibilities to make a difference.” Here are some of Nagda’s principles for helping students address differences and create a more just future:

Engage issues of social justice: Nagda says, “We can talk about intercultural competence, but if we don’t address issues of social injustices, such as income stratification and histories of violence and power inequality, we are just skimming the surface.”

Build students’ listening skills for true dialogue: Through a series of developmental exercises, Nagda encourages students to talk with rather than past each other. He says, “It’s a huge eye-opener for students to see how little they usually listen, or are listened to, and that they can learn techniques to make them better listeners.”

- Students pair up and share for two minutes each with their partners, then try to paraphrase back what they heard.
- In their next discussion, which can be with a partner or in a small group, students try to listen for not just for the words explicitly spoken, but for underlying feelings, meanings, and values, and to ask questions for deeper understanding.
- Students then practice “connected listening and speaking,” linking their comments to those of previous speakers. Nagda asks students to pass a ball of yarn from one speaker to the next to help them visualize connected dialogue.
- Finally, students reflect on and have “a dialogue about the dialogue,” noting dynamics, and engaging new questions that have emerged for them.

Be attentive to who speaks, how, about what, and when: “People from marginalized groups are often silenced or seen as spokespersons, and people from privileged groups can dominate discussions or be hesitant to talk.” Nagda pushes students to critically reflect on these dynamics and participate more reciprocallly.

- On day one, ask students to create shared agreements for engagement: Nagda pushes students to move beyond basic civility in their agreements to a deeper respect and appreciation for what each person brings to the classroom.
- Own your identity in the classroom and ask students to own theirs: Nagda asks students to consider how issues of identity can shape classroom interactions, learning processes, and understanding of course content. “For example, my identity as a transnational, first-generation immigrant man of color in a faculty role influences the way I see and experience the world, and who I am and how I am perceived in the classroom,” he says.
- Use hard moments as learning opportunities: When conversations get tense, Nagda says, “We have students pause, reflect, and unpack the layers—from the personal to the political—that are manifest in the tension. It is not only to deconstruct the situation but to construct alternatives, to turn walls of separation into bridges of connectedness.”

Encourage students to apply their learning in new settings and as leaders: These skills can apply in student and community organizations, and at work. Says Nagda, “Students learn to ask, ‘How can we participate or organize more inclusively?’ and to reflect on ‘How can I empower members of a community by listening to them, by working with, and not just for, them?’ Not only do our students see the world in a different way, but they are in the world in a different way, a generative way.”

Helping Students Prepare for What’s Next

Faculty on UW campuses are partnering with career center professionals to help students link their educational experiences to their professional ambitions, and to develop leadership skills they will need in the workplace. Together, they are making explicit the link between coursework and professionally-relevant competencies so students are aware of their own abilities and can articulate them to employers or graduate admissions committees. Career services programs at the UW are even finding ways to partner with interested departments to build practice of professional skills into the curriculum. Students value the practice they gain in professional skills such as networking and the opportunity to integrate their academic and professional development.

“For all students, the challenge is to differentiate themselves from a million other graduates with similar majors. But for students in innovative or interdisciplinary majors, it’s even more important to be able to explain their education to people unfamiliar with that degree. It’s the blessing and the curse of innovation. You have to be able to do it and explain it at the same time.”

Bruce Burgett, Dean and Professor, Interdisciplinary Arts and Sciences, UW Bothell

“Students go into this activity feeling nervous and scared because they’re not sure how to successfully pitch to someone else. Through the process, however, they come to appreciate being put out of their comfort zone to learn skills that they will use in future situations.”

David Parker Brown, Career Counselor, Career Services, UW Bothell

UW Bothell Career Services and School of Interdisciplinary Arts and Sciences: Learning networking skills with elevator speeches

Graduating seniors are often told they should develop an elevator speech, a 30-second talk about their experience, goals, and skills that they can adapt on a moment’s notice should they happen to meet a potential mentor or employer. In UW Bothell’s Interdisciplinary Arts and Sciences (IAS) capstone courses this “should” is transformed into a “how to.” “Students practice giving an elevator speech so they’re prepared to explain their education and to tell a persuasive story about their abilities—one they can back up with specific examples and evidence—in an off-the-cuff situation,” says IAS Dean Bruce Burgett.

The elevator speech exercise is just part of a focus on career and life strategy that begins freshman year, the result of student feedback requesting more help in developing professional skills. The program initially focuses on reflection to help students get a grasp of their strengths and knowledge with more sophisticated career preparation added during students’ junior and senior years. By the time seniors reach the elevator-speech activity, they have already participated in community-based learning or an internship, created an ePortfolio of their experiences both in and out of class, and drafted an application to either graduate school or an employer. For groups considering similar activities, the IAS team offers this advice:

Realize that students come with different assumptions about networking: “Students come to this activity with different assumptions about whether, how, and with whom they should network. There are cultural and class issues at play, too,” says Associate Professor Wadiya Udell, one of a team of IAS faculty who work on the program’s capstone. “In the elevator speech activity students learn that it’s okay to approach people, and they learn the right way to do that without coming on too strong or clamming up. Most importantly, they learn they need to prepare and not expect these opportunities to just happen.”

At right, Dean Bruce Burgett (center) works with Career Counselors David Parker Brown (left) and Kim Wilson (right) to include professional preparation into UW Bothell’s IAS curriculum.

Photo by Marc Studer, Media Producer, Production Services, Information Technologies, UW Bothell.
"The best partnerships are ones led by faculty to build co-curricular opportunities into their classes supporting students' personal and professional development."

Kim Wilson, Career Counselor, Career Services, UW Bothell

"Most students don’t start out thinking they need to practice informal networking. Some think it’s not hard and therefore doesn’t warrant practice. Others aren’t aware that it’s a skill they can cultivate."

Wadiya Udell, UW Faculty Diversity Scholar; Associate Professor, Interdisciplinary Arts and Sciences, UW Bothell

Explain what an elevator speech entails and how it links back to UW education:
Students review the application to a job or graduate school that they drafted earlier in the program and consider who might review it, perhaps an HR professional at Amazon, a graduate admissions committee, or a real person they know. They then role-play encountering this individual in person, introducing themselves, and making the case for why they’re a good candidate. They’re told they have less than a minute to complete these three steps:

- Make a claim about themselves to a specific potential mentor or employer
- Tell a story about their education and why it’s relevant
- Support their story with evidence and specific examples

Kim Wilson and David Parker Brown of UW Bothell Career Services lead students through the activity, in which students spend 30 minutes preparing their elevator speech and then deliver it three times to peers who provide feedback. “We don’t give them much lead time because we don’t want them to sound rehearsed. In addition, they need to learn to think quickly and be flexible because they can’t give the same pitch to everyone,” says Wilson.

At the discretion of the faculty involved, students sometimes practice their elevator speech in an actual elevator. “The building is three stories tall, so the students have about 45 seconds to make a convincing claim about their education. It’s a tight time frame, but it’s also realistic and forces the creation of a focused narrative,” says Burgett.

Let students push through nerves to build confidence: “The students have no idea how difficult it is, and the first time they give their speech it’s terrible,” says Udell. After feedback and several tries, students build confidence and begin to get the hang of presenting themselves effectively.

Activities like this can make a real difference in a student’s life: “Student feedback has been overwhelmingly positive,” says Wilson. One former student who worked as a barista pictured a regular customer, an attorney, when he practiced his elevator speech about pursuing a career in law. When he had an opportunity to speak to the customer, his practice kicked in and he landed an internship at the customer’s law firm.

Partnering with career counselors helps faculty support students: “Researchers often aren’t the best networkers,” admits Udell. “Working with Career Services makes it much easier to help students learn these skills.”

At right, UW Bothell students practice delivering their elevator speeches with Career Counselor David Parker Brown (center). Students from left to right: Maritza Chavez, Mike Thom, Hanan Osman, and Mojan Ahmadi.

Photo by Marc Studer, Media Producer, Production Services, Information Technologies, UW Bothell.
Susan Terry and Briana Randall: Helping faculty help students prepare for life after graduation

One of the most common questions students ask at the UW Seattle Career Center is, “What can I do with my major?” “Students really want a direction; they want to understand the connection between major and career and their place in the world,” says Susan Terry. “We need to help our students be more intentional about the choices they make. They have so little time. We know how to find the rock-star students. They find us. But we need to engage more of the students who aren’t stepping into the UW experience as readily. Faculty providing some of that guidance and mentorship is extremely useful and important.”

To that end, the Center has launched a web page to give faculty “simple ways they can introduce the idea of career or even just signal to their students that they’re open to talking about these issues,” says Briana Randall. This relatively new focus on faculty resources builds on the Center's ongoing work with students and departmental advisers, providing general and discipline-specific information about internships, service-learning, and careers; and directly serving students through one-on-one career counseling and workshops at the Center or in academic departments. “We are excited to be working with faculty. They are the front lines in helping students learn about and value opportunities outside of class—and in helping students connect the dots between their different kinds of learning,” says Terry. Here are some of the Center staff’s suggestions for faculty:

Quick, easy referrals from faculty and advisers can have a big impact: “Students are much more likely to take information seriously or go to an event if they hear about it from a faculty member or departmental adviser, or, best, from both,” says Randall. The Center’s online checklist includes ideas such as:

- List resources for students in the syllabus or link to them from the course website.
- Mention resources in class or share handouts such as “How Do Huskies Get Jobs?,” “Internships: What, Why, and Where?,” and “Making the Most of Your Major.”
- Encourage students to pay close attention to emails and resources from their advisers. “Advisers are a tremendous resource for faculty,” says Randall.
- Require or offer extra credit for attending a career fair or an online or in-person workshop, such as “LinkedIn 101,” “Identifying Your Strengths,” and others offered by the Center.
- Invite a career counselor or alum to visit class.

Help students start to think about life after graduation sooner rather than later: Many programs don’t talk to students about what is next until their senior year. Faculty can encourage students to prepare earlier. The UW Seattle Career Center focuses on helping students understand their interests and strengths—core characteristics that can serve them in all areas of their life—such as resiliency, persistence, or the ability to innovate. “This work will make it easier for students to plan their time at the UW and beyond, because they have a strong sense of who they are and what they can contribute to different kinds of work environments,” says Randall. Terry adds, “We counsel students that not all alumni land the ideal job that maximizes their talents right away, that often they have to work their way into that perfect position over time. At the same time we talk about the need for them to follow their strengths and not allow themselves to be trapped in something that’s not a good fit.”

Make it clear how students’ classroom experiences can help in their careers: Local and national employers say that students, especially undergraduates, are not practiced in articulating their skills, says Terry. “You really have to spell it out on the spot what type of skills students are developing in a course or major, such as problem-solving, quantitative analysis, project management, or team management, that could translate to a different course or even a different discipline,” says Terry.

Resources: New faculty pages on the Career Center website.

“I think faculty and staff jump ahead and assume that because our students are pretty amazing they must not need help articulating their skills. However, a lot of students really do need and appreciate guidance.”

Briana Randall, Associate Director, Career Center, UW Seattle

“We work with students about one of the most important decisions in their lives—not necessarily a particular job, but a career path. What we want for students is what we all want—fulfilling lives and successful careers.”

Susan Terry, Director, Career Center, UW Seattle
It Takes All of Us:
We're Well Underway, but There's More to be Done

The literature on student engagement indicates that students need help as they learn how to connect their classes to one another, connect their coursework to their academic major, and connect their learning on both sides of the classroom door to their personal and professional ambitions. This support can be found in a variety of places on the UW's three campuses, such as Undergraduate Academic Affairs, the Graduate School, and the Office of Minority Affairs and Diversity at UW Seattle; Student Services at UW Bothell; Student & Enrollment Services at UW Tacoma; and departmental advisers, student life units, and the campus career centers. However, there is evidence that students are more likely to take advantage of such resources when the message to connect comes from the faculty, too. The more often students hear this message and have consistent opportunities to reflect on, build, and practice articulating their skills, the better prepared they will be for life after graduation.

UW resources for faculty

- The Career Center and the Center for Teaching and Learning (CTL) at UW Seattle have developed online resources for faculty to help them support and connect students to services and opportunities.
- The Office of the Provost is working with partners on all three campuses to feature innovators who are helping students link their experiences in and outside the classroom in reports and resource videos, such as recent videos on Teaching Teamwork and Learning Paragraphs available on the 2y2d Initiative web site.
- Departments can also invite professionals from career centers on all three campuses (UW Seattle’s Career Center, UW Tacoma’s Career Development & Education, and UW Bothell’s Career Services) to provide workshops for students on career skills and creative ideas for what they can do after graduation, to plan events where alumni share their experiences with current students, and to help faculty incorporate more explicit instruction of broad skills and reflection into the curriculum through portfolios, capstones, and other activities.

Events and workshops

- enLightning Talks, Tuesday, May 13, 4:00–5:30 p.m., Odegaard Undergraduate Library, Seattle Campus, Room 220. Five-minute lightning talks from six Technology Teaching Fellows who transformed traditional courses to hybrid or online courses sponsored by the Center for Teaching and Learning (CTL). Departments represented include Chemistry, Philosophy, Earth and Space Sciences, American Indian Studies, and Colleges of Education and the Environment. Pre-registration requested.
- Higher Education as Collaboration: Partnering for Work, Leadership, and Life, Tuesday, May 20, all day, Doubletree SeaTac, Seattle, co-sponsored by the Association of American Colleges and Universities (AAC&U), the AAC&U Liberal Education and America’s Promise (LEAP) Initiative, and the Washington Consortium for the Liberal Arts. Pre-registration required; there is no fee to attend.
- “What Skills, Knowledge, and Abilities the UW Wants for All Graduates,” Thursday, May 22, 12:30 p.m., UW Seattle. This discussion is part of an ongoing UW Seattle effort to develop aspirational outcomes, based on input from faculty, staff, students, alumni, and community members; similar conversations at UW Tacoma and UW Bothell; and research by the AAC&U and other organizations. To participate, email edtrends@uw.edu.
- “Work Smarter, not Harder: Using Technology to be a More Productive Teacher,” Thursday, June 5, 12:30–1:20 p.m. in Faculty Resource Center (WG 208), UW Tacoma. One of a series of Teaching Forums at UW Tacoma on first Thursdays. To join the conversation, post comments on the Forum blog.
- Faculty and Professional Learning Communities (FPLCs) are offered every quarter at UW Seattle by the Center for Teaching and Learning (CTL). Spring 2014 topics include “Designing and Assessing Creative Assignments.”
- UW Bothell Teaching and Learning Center (TLC) offers faculty support, such as a full-day “Large Class Collegium” and follow-up learning community. For upcoming events, check the TLC schedule.
- Invite staff from the Center for Teaching and Learning (CTL), UW Seattle Career Center, and the Office of the Provost to your unit or program to facilitate a faculty and staff roundtable on “Helping Students Prepare for Life After Graduation,” similar to those held earlier this year on the Seattle and Tacoma campuses. Contact edtrends@uw.edu.

Continuing the conversation

In addition to speaking with faculty and staff members, we have continued this conversation with recent graduates. We spoke to alumni about their UW education and their transition to life after graduation, and we asked them what the UW could learn from their experience. The next report in this series will feature a number of these alumni as they reflect on what they carry with them from their Husky experience, and what they wish they had known before graduation.

We welcome your comments, questions and suggestions. Please email edtrends@uw.edu.
References


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