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Engaging Global Challenges

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About *Diversity & Democracy*

Diversity & Democracy supports higher education faculty and leaders as they design and implement programs that advance civic learning and democratic engagement, global learning, and engagement with diversity to prepare students for socially responsible action in today's interdependent but unequal world. The publication features evidence, research, and exemplary practices to assist practitioners in creating learning opportunities that realize this vision. To access *Diversity & Democracy* online, visit www.aacu.org/diversitydemocracy/.

FROM THE EDITOR

Engaging Global Challenges: The Interconnected Effects of Individual Actions

Scale can be an extraordinarily difficult thing to envision. What does it mean to be a singular person on a planet of over seven billion? For college students, some of whom may be grappling to adjust to being one of a class of several hundred or several thousand, such questions can be overwhelming. What part do I play not only in relation to my own immediate communities, but also within the world at large? What role do greater global systems, in all their messy interdependency, play in my life?

> What role can you and your institution play in helping students understand the magnitude of their responsibilities on a global scale?

While neither question has an easy answer, the second is in some ways more approachable than the first. It's easy to see *that*, if not precisely *how*, global systems—of wealth, health, migration, politics, and climate, among others—variably, and inequitably, affect the lives of everyone on the planet. But it can be more difficult to envision one's particular role at the crux of these different systems—or, as Hilary Kahn puts it in this issue, to see oneself as a "global knot" whose actions are affected by, and can have an impact in, far-flung contexts.

And yet the task of prompting students to envision these relationships is not only within higher education's reach—it is critical to preparing students for twenty-first-century realities. Today's college students, whether they are seventeen or seventy, will witness first-hand the implications of global interconnectedness, encountering global challenges—including climate change, economic instability, political violence, and social inequity—that they can choose to address or exacerbate. Higher education must equip students with the information, skills, and capacities they need to make the decisions, large and small, through which they may compromise or contribute to the greater good.

Fortunately, as this issue's contents illustrate, global challenges offer critical opportunities for learning. To prepare students to address the globally complex challenges that they will encounter as graduates, there is no better practice than addressing global challenges in the curriculum and cocurriculum. By working with engaging global challenges, students can become engaged global learners, prepared to excel in their own lives and to address the most pressing problems facing society.

This issue's authors focus less on the specifics of these pressing problems than on the different methods by which higher education can involve students in addressing them. Contributing authors describe service learning, inquiry into "big questions," and project-based learning as possible avenues into this work. They examine cross-institutional, interdisciplinary, and discipline-specific approaches to global challenges—including practices aligned with the vision that the Association of American Colleges and Universities (AAC&U) recently outlined in *The LEAP Challenge* (2015). They raise pressing questions about inclusion and equity in a global society, and about how higher education can advance these principles.

The question for readers of this issue is how they can similarly engage students in addressing global challenges at their institutions. What role can you and your institution play in helping students understand the magnitude of their responsibilities on a global scale? By what particular means will you prepare your students to contribute to the shared end of a more healthy, sustainable, peaceful, and equitable global community—and to gain the skills they need for their own success in the process?

If that last question seems overly idealistic, consider the words of Worcester Polytechnic Institute student Luke Perreault. Reflecting in this issue on his project-based learning experiences in college, Luke concludes that "when you jump up, you move the world down, just a tiny bit. Everyone is a world mover." Globally engaged learning experiences, spread across four years of the curriculum, led Luke to believe that "being a world mover isn't impossible: it's just physics." Imagine what the world would be like if every educator and every student came to the same conclusion.

—Kathryn Peltier Campbell
Editor, Diversity & Democracy

If you are interested in exploring global learning in collaboration with others, consider attending AAC&U's Network for Academic Renewal conference on Global Learning in College: Defining, Developing, and Assessing Institutional Roadmaps on October 8 to 10, 2015, in Fort Lauderdale, Florida.

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[ENGAGING GLOBAL CHALLENGES]

Scales of Global Learning: Prisms, Knots, and a Cup of Coffee

HILARY E. KAHN, director of the Center for the Study of Global Change and assistant dean for strategic collaborations in the School of Global and International Studies at Indiana University

Being able and willing to recognize oneself as part of a complex and interconnected world is an essential component of global learning. If students are to engage in global challenges, educators must employ pedagogies that prioritize outcomes where students learn to seamlessly view themselves as related to other people, locations, and issues around the world. How do educators create learning environments that not only allow students to learn about the world, but, more importantly, prompt them to see the multifaceted and intersecting undercurrents that give meaning to the world and to their lives within it?

Imagine global pedagogies as a metaphoric prism. Consider how a prism splits light into constituent colors or allows you to see an image projected at various angles. A pedagogical prism provides multiple faces through which to dissect the complexity of the subject matter. In a prism formed through global learning pedagogies, these faces include the diverse questions, assumptions, idiosyncrasies, and disciplinary and professional paradigms that students bring with them to learning environments, as well as angles of interpretation they may newly acquire in the classroom: theories, methodologies, and ways of analyzing subjects economically, culturally, nationally, politically, historically, globally, and so forth. Because the faces are personal as well as academic, pedagogical prisms allow students to look out while looking in; they create learning spaces where students can view the world through multiple vantage points assembled through their studies and experiences, thus answering academic questions while also exploring themselves. Pedagogical prisms allow students to see global complexity, whether they are viewing a cup of coffee as a hub of transnational interconnections or seeing their own identities as transcending borders.

To practice these vital skills of global analysis, students need to be able to move fluidly between different vantage points, including disciplinary models, distinctive cultural contexts, and transnational perspectives. They must navigate the prisms' angles of projection by shifting back and forth across various scales of meaning, balancing relativistic and universalistic approaches, and challenging conceptual and physical boundaries. They must come to recognize relationships and connections that stretch far beyond the local.

Highlighting the importance of such connections, Tim Ingold (2015) describes the world in terms of processes of knotting and series of shifting knots. Global learning involves critically examining these knots and uncovering the underlying processes that give them meaning. Students can learn to use analytic prisms to follow the lines and threads, tracking connections that stretch far beyond any individual knot. But the pedagogical process of exploring and untying the knots of our world cannot remain solely cognitive. Globally engaged students must also look through global prisms at themselves and at the human condition (Van Balkamp 2010). They must not only know about the world, but also have a sense of human engagement with it. By encouraging students to view the knots of the world through their prisms, educators can instill responsibilities built on students' transnational senses of self.

> To understand and solve the challenges facing humanity … students need to incorporate multiple angles of interpretation and develop responsibilities that extend far beyond the immediate worlds in which we often imagine our lives as anchored.

Three Key Competencies

Institutions of higher education and global educators are responsible for designing learning environments where students can practice and translate, in a variety of contexts, the understanding that emerges as they look through global prisms and untie knots. To understand and solve the challenges facing humanity, whether they initially appear to be local or are clearly transnational in nature, students need to incorporate multiple angles of interpretation and develop responsibilities that extend far

beyond the immediate worlds in which we often imagine our lives as anchored.

Global learning has many components, but three integrated competencies are fundamental to it. First, students must be able to dissect knots, or complex situations, that gain meaning through multiple perspectives and processes. Second, to adequately explore these knots, students need the ability to shift between various scales of understanding and practice (or see through prisms). And third, students need to be able to leap from an analytic understanding of our interconnected world, and of the knots and knotting that define it, to a sense of commitment and responsibility to others. Together, these three competencies provide a robust foundation for global learning.

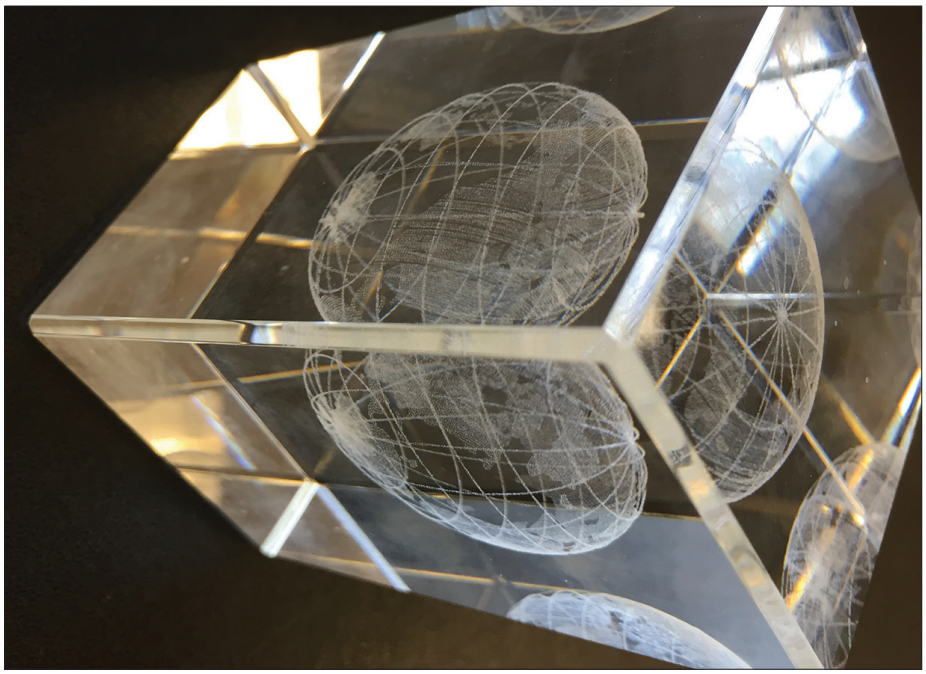

Photo courtesy of Hilary E. Kahn.

In order to thoroughly and critically explore the knots where human lives intersect, students need to step out of their unquestioned assumptions, recognizing that they have positions and biases that are guiding their interpretations. Such self-reflection demands basic cultural literacy, which allows students to untie the political, historical, economic, religious, and social trajectories that connect and give meaning to phenomena and practices. To examine and unpack complex narratives, students need critical thinking skills—skills that allow them to analyze complicated social, political, or environmental situations. This key analytic skill involves dissecting the knots, but also recognizing how the students themselves *are* a global knot and how their lives are interstitial points that need exploration. Students must thus reflect upon their own knotted lives and histories as well as be able to translate this cultural literacy anywhere, whether in a small college town in the United States or a *favela* in Brazil. Ultimately, students must see relationships and processes (knots and knotting) rather than static things or products. They must dig below surfaces of our everyday objects of inquiry to make visible the relationships that give things meaning. They need to look around and see a world full of knots; they must recognize themselves as one of those knots.

The ability to shift between scales of understanding is particularly critical to students' ability to untie knots effectively. By looking holistically through a prism of plural perspectives, students can effectively circumvent one of the many binaries that might prevent a sense of global responsibility: the tired dichotomy of relativism/universalism. Questioning this dichotomy is particularly critical, even though there are many other binaries that challenge global engagement (including local/global, self/other, and learning/teaching). Scholars and philosophers have been questioning relativism for thousands of years, but the thought of doing so still makes some international educators uncomfortable, since few deny that cultural practices and ideas should be understood relatively within specific contexts. Even so, extreme relativistic thinking can be an impasse to global learning. When students think too specifically and geographically about cultures, identities, communities, or nations, without recognizing them as knots that integrate far-flung phenomena and power, they miss an opportunity to think globally. Students end up seeing only isolated pockets of difference and they lose the chance to see the connections that are embedded in the knots that surround them. While relativism must be part of global learning, it should be contextualized within a broader understanding of the complex human conditions that lie beneath different cultural practices.

This ability to shift back and forth across and between scales of understanding, particularly between globalized scales and more localized geographies, is critical to developing a sense of global responsibility in students. As students rethink their own geographies, redefining themselves (as not so singular) or challenging their ideas about culture (as not so bounded

and static), they rethink the boundaries that define traditional ways of seeing the world. They begin to see how complicated, globally connected, and relational their own identities and lives truly are. Doreen Massey (2004) reminds us how our identities are aligned with our senses of responsibility. As students come to understand the global aspects of their identities, they become positioned to make the difficult leap to a global sense of responsibility. They become willing and able to dislodge their definition of responsibility from their localized geography and move it to a borderless space where they can learn to care about the world.

Acting on the Knots

To create learning environments that help students develop the competencies associated with global learning—enabling them to untangle complex knots, navigate different scales, and realize their commitments—educators should envision their classrooms as knots and their students as perpetually engaged in processes of knotting and unknotting. Faculty can help students discern their commitments, understand the ramifications of those responsibilities in both local and global contexts, and determine effective ways of making an impact. Pedagogies that are effective in this regard include interdisciplinary co-teaching, collaborative work, service learning, problem-based learning, and other practices that encourage active learning. Pedagogies that bring the analytic focus back home are most effective in spurring social action and critical understanding.

A powerful pedagogical practice that reveals global connections, crosses multiple scales of understanding, encourages critical self-reflection, and cultivates responsibility involves taking a common object and transforming it into a global knot. As students examine the object critically, they come to see the complex histories, colonial vestiges, international inequalities, economies, politics, and cultures that connect through it. Nearly any object—an automobile, an iPhone, a bowl of sugar, a McDonalds hamburger, a dozen roses, a pair of jeans—can provide a basis for this exercise.

Coffee is a superb everyday item to explore. Many students start their day with a cup of coffee, but few of these students—and few of the over 100 million coffee drinkers in the United States (Statistic Brain Research Institute 2015)—see through that cup of joe to the multibillion dollar global economy behind it. A small number see through their mugs to the young children picking ripe coffee beans on foggy mountainsides in Guatemala, or to the middleperson who sells these beans or the processed coffee to the exporter. Most do not recognize the multitude of brokers, importers, and distributors who get their favorite coffee to their corner coffee shop. Coffee drinkers do not see how the entire commodity chain is disjointed by and embedded within unequal power relations, drastically shifting values and meanings, and international policies. They do not see a transnational knot that connects them to Ethiopia, Costa Rica, or Sumatra.

A global educator can help students dissect this knot. In the case of coffee, an educator could help students consider fair trade as one potential form of action that responds to the disjunctions in the commodity chain and aims to level the playing field by setting fairer prices and re-establishing ethical connections to communities and the environment. An educator can also prompt students to explore the scrutiny that has been applied to fair trade, perhaps exploring if profits actually reach the farmers in Guatemala or considering if consumers are misled by fair trade labels. Once an educator has helped untie the knot of coffee, students may begin to understand the need for fairer practices and

Photo courtesy of Hilary E. Kahn.

experience a pedagogical awakening toward action.

Indeed, a global educator can encourage students to take action in response to their new knowledge. For example, educators can divide students into groups to develop social action projects that educate as well as engage others beyond the classroom. In an International Studies class examining human rights and coffee at Indiana University, for instance, students created a petition calling for more fair trade offerings in dining halls, designed a map of local vendors that sell fair trade coffee, produced a radio advertisement for the campus radio station prompting listeners to learn what is in their morning cup of coffee, and distributed brochures and free fair trade coffee on campus. Students participating in such exercises might decide that they can afford to spend more money on their coffee in order to purchase fair trade the next time they are in a grocery store, or they could begin to ask their barista which of the day's coffees are fair trade

(or what percentage of the coffee is fair trade). They may seek internships with fair trade organizations, study abroad in coffee-producing regions, or design nonprofit organizations that aim at balancing the inequalities in the coffee commodity chain. Whatever project students decide to pursue or action they choose to take, they will look through their prism to see coffee as a knot, and they will learn to act on this knowledge. They will become connected to the world through their morning cup of joe.

Processing the Image

Global learning pedagogies encourage students and educators to chip away at established categories and epistemologies. Metaphorically, they require students to look at an image and get below its surface. It is not surprising, then, that visual approaches are extremely effective pedagogical prisms for breaking down the boundaries that often lie in the way of global understanding.

While there are numerous explanations for the efficacy of visual methods, a critical reason is because learners who produce images become part of the knotting process. Consider this phenomenon in the context of students learning about human rights, when they are asked to use art as an impetus for social change. Faculty can ask students to select and research a specific human rights issue and then design a visual art piece as a springboard for action and education. (Some students may hesitate at the thought of creating art, but what they can do and what they will learn is often impressive.)

Photo courtesy of Hilary E. Kahn.

Most critical to this assignment's potential for enhancing global learning is the process it inspires. In conducting research, considering what symbols will best educate and engage an audience, and actually making art, students learn that creating artwork is more about the process than the product. The assignment thus not only teaches students about a human rights issue but reveals how artwork is like a global knot—how while things, like art, may appear stable or cohesive, they are in fact full of cultural and political complexities that are providing them with meaning. The art assignment helps students learn about the social, political, and historical assemblages that comprise human rights, global knots, and students themselves.

Ultimately, visual methods reveal that knowledge is as much about the process of knotting and unknotting as it is about the knot itself (Ingold 2015, 47). Visual methods are thus extremely effective at instilling skills of global and cultural literacy. They encourage learners to step off of their academic verandas and become producers of global knowledge. Social action art projects thus directly challenge yet another worn-out binary, that between learning and teaching—a dichotomy that must crumble for classrooms to become spaces where students actively shift their perspectives and produce global knowledge.

Inspiring Global Action

Educational institutions that want to prepare students for the global challenges of the twenty-first century need to encourage pedagogical creativity. They need to prompt students to dissect complicated global knots, whether by creating artwork or by videoconferencing with a class in Nicaragua to exchange different points of view about US foreign policy or fair trade coffee. Assignments can require students to open their refrigerators and trace the global connections through the food inside, or to work with peers to design interdisciplinary solutions to transnational challenges. No matter what pedagogy is most appropriate for a particular learning environment, global educators should aim to foster global understanding by helping their students see the entire world—through a plurality of perspectives—as a place to which they are firmly connected. By doing so, students will begin to see themselves as complicated knots whose responsibilities span many contexts, far and near. They will learn how to shift between viewpoints informed by cultural idiosyncracies and those rooted in transnational trends. In short, students will go global. And once they do, they will never stop seeing knots through their global prisms—or, ideally, caring about the world and their impact on it.

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[ENGAGING GLOBAL CHALLENGES]

Global Service Learning: Addressing the Big Challenges

DAWN MICHELE WHITEHEAD, senior director of global learning and curricular change at the Association of American Colleges and Universities

In the State of Hidalgo, Mexico, and in Indianapolis, Indiana, students from Indiana University Purdue University–Indianapolis (IUPUI) are working with university and community partners to investigate the shared global challenge of health care access. Drawing on knowledge developed in their home contexts and abroad, these students have gained an enhanced ability to think about ways of improving health care access in both Hidalgo and Indiana. Like many of the world's big challenges—including those related to education, clean water, communicable disease, governance, international and rural-urban migration, population growth, and environmental sustainability—this challenge can only be addressed by individuals working across disciplinary lines and considering multiple perspectives. Integrative liberal learning prepares students to examine and analyze global problems using such interdisciplinary skills and strategies.

Global learning and service leaning are two potential components of integrative liberal learning that prepare students to address twenty-first-century global challenges. Both types of learning experiences have been recognized as "high-impact educational practices" that benefit all students, particularly those from historically underserved groups, by increasing student engagement and persistence (Kuh 2008). Global learning and service learning both demonstrate the ability to empower students and prepare them for their future professions and life in our global community, at home and abroad. Most institutions recognize the power of these practices by mentioning global engagement, service learning, or both in their mission statements as experiences that students should have, although opportunities for *all* students to participate in these high-impact practices are not yet available.

Drawing on elements of global learning and international service learning, *global service learning* is an emerging, holistic practice that encompasses service experiences both in the local community and abroad. Global service-learning experiences are guided by a global learning framework, designed to support global learning outcomes, and involve direct engagement with difference. By providing an anchor for active involvement with diverse communities engaged in real-world challenges, global service-learning experiences can support the achievement of such learning outcomes as civic knowledge and intercultural knowledge and competence—outcomes that the Association of American Colleges and Universities (AAC&U) has deemed "essential" in the twenty-first century (Hovland 2014).

Global Learning: Not Just Study Abroad

Naturally, the concept of global service learning depends in part on the concept of global learning. While there are many definitions of global learning in use across higher education, a definition created through a collaborative, deliberative process with faculty from AAC&U member institutions offers one useful framework. This definition, which frames the global learning rubric developed through AAC&U's Valid Assessment of Learning in Undergraduate Education (VALUE) project, describes global learning as involving "a critical analysis of and an engagement with complex, interdependent global systems and legacies (such as natural, physical, social, cultural, economic, and political) and their implications for people's lives and the earth's sustainability" (AAC&U n.d.). Ensuring an exploration of interconnectedness, power, and privilege, this definition situates global learning at the center of all learning—not just learning in areas that are explicitly global in focus—as students explore big questions, whether abroad or on their home campuses.

Historically, some educators have associated global learning exclusively with study abroad. But the VALUE rubric definition does not imply that study abroad is essential for global learning—a good thing, since the vast majority of students do not participate in study abroad. While study abroad participation has grown dramatically over the past fifteen years (with the number of undergraduate students studying abroad more than doubling between 1999 and 2014), only 9 percent of American undergraduates studied abroad as of 2014 (Farrugia and Bhandari 2014). A well-structured study abroad program is one of many ways to engage in global leaning, but it is not the only global learning experience available to students. In fact, global learning can occur in a wide range of activities, including international interactive videoconferences; engagement with international students and scholars; projects that are inclusive of global perspectives and approaches; and globally focused integrative courses, capstones, and internships.

Regardless of the global learning activity, it is essential for faculty to connect that activity to student learning outcomes and competences. By using

a global framework to interpret what students are able to do, faculty can measure the global learning outcomes of any educational experience (Hovland 2014). The global learning VALUE rubric suggests that global learners should be able to "become informed, open-minded, and responsible people who are attentive to diversity across the spectrum of differences, seek to understand how their actions affect both local and global communities, and address the world's most pressing and enduring issues collaboratively and equitably" (AAC&U n.d.). In other words, the framework focuses on what students are able to do in the local community and abroad, and it puts student learning at the center of real-world challenges facing our nation and the world. Furthermore, it encourages an emphasis on the local and global connections that are found in almost all communities. Students can achieve the outcomes that the VALUE rubric suggests by engaging locally to explore global challenges, making connections to the larger world, and engaging with difference. Service learning is one specific practice that situates students to achieve these outcomes. *(Editor's note: The global learning VALUE rubric is available at www.aacu.org/value-rubrics.)*

From International to Global Service Learning

Like participation in study abroad, participation in fieldwork, internships, and service learning in international host communities has increased in recent years (Forum 2013). Historically, international service learning has been defined based on the location of service: for example, Bringle and Hatcher define international service learning as

> a structured academic experience in another country in which students (a) participate in an organized service activity that addressees identified community needs; (b) learn from direct interaction and cross-cultural dialogue with others; [and] (c) reflect on the experiences in such a way to gain further understanding of course content, a deep understanding of global and intercultural issues, a broader appreciation of the host country and the discipline, and an enhanced sense of their own responsibilities as citizens locally and globally. (2011, 19)

This definition includes the essential elements of a well-designed service experience—that it is driven by community need, involves direct interaction with others, requires critical reflection based on course learning outcomes, and results in a deeper understanding of global and intercultural issues—while emphasizing the importance of the international location.

While Bringle and Hatcher focus on international service learning as taking place *in another country*, I believe that service learning with global frameworks and outcomes can take place *at home or abroad*. Building on the work of Longo and Saltmarsh (2011), I therefore advocate for an evolution of terminology—from *international service learning* to *global service learning*. Such a reframing involves shifting the focus from the *location of the service* to the *content of the service*. As Longo and Saltmarsh argue, service learning in an increasingly internationally connected domestic environment has the potential to connect the local to the global, and a global framing for this type of local experience, along with service learning outside the home country, "generates learning that is global" (71). Therefore, global service learning can take place in the local community, in an international setting, or in both settings as a connected learning experience. By conceiving of global service learning in this way, educators can expand the range of possibilities for engaging students in meaningful global learning experiences—while still being guided by the other elements of Bringle and Hatcher's definition.

Wherever it takes place, global service learning requires deep, grounded knowledge of community cultures along with respect for the knowledge and experiences of community members. Attention to cultural, economic, historical, political, and social issues affecting the community, as well as to those issues' local and international contexts, is essential (Longo and Saltmarsh 2011). Global service learning affords students opportunities to understand the larger structural forces underlying social problems, provides transformational learning experiences, and helps students see the world in a profoundly different way (Kiely 2004).

> Drawing on elements of global learning and international service learning, global service learning is an emerging, holistic practice that encompasses service experiences both in the local community and abroad.

Facilitating Global Service Learning

Faculty members who facilitate global service-learning experiences must take extra time to ensure that their students are fully prepared for the "big

challenges" they will encounter in the field. They must also situate students' experiences within the global context and prepare students to analyze aspects of those experiences using global perspectives.

Several models for global service-learning experiences already exist, with elements that transcend all models. For example, global framing and reciprocity with community partners are two guiding principles on which global service learning depends for its transformative potential, and without which it could have harmful effects. Global service-learning experiences also must involve strong preengagement preparation, clear articulation of roles for all involved, transparent connections to course learning outcomes, and evaluation of the experience by community partners, faculty, and students. Furthermore, students must engage in critical reflection throughout the experience, making connections between the service and the course content. Crabtree (2013) provides excellent recommendations for avoiding unintended consequences of global service learning, along with a useful framework for facilitating global service-learning projects both in the United States and abroad.

One model of global service learning involves a stand-alone experience where significant service at a local site is situated within a course on the home campus. In this model, which is guided by global learning outcomes, service in the local community complements formal academic content and provides students with practical experience, exposure to community partner perspectives, and engagement with community members and their knowledge. This type of experience allows the 91 percent of undergraduate students who do not study abroad to participate in a meaningful way in both service learning and global learning. A second model involves a stand-alone experience where international service is situated in relation to a course offered on campus. Prior to traveling to the international location, in addition to undertaking the preparation required by all models, students must prepare for cultural and logistical challenges specific to immersion in another country. Upon return to the home campus, students should participate in a series of post-travel sessions where they discuss and reflect critically on their experiences and make connections to the course content and learning objectives. A third model is a "sandwich model" where a formal academic component occurs before and after the international service experience. In this model, service in a local community with connections to the international project could be incorporated into the academic component in order to prepare students for their international service.

> Wherever it takes place, global service learning requires deep, grounded knowledge of community cultures along with respect for the knowledge and experiences of community members.

The benefits of service-learning experiences with a global focus are well documented. Students who participate in these experiences gain intercultural competence and global awareness (Bringle, Hatcher, and Jones 2011; Hartman and Kiely 2014; Kiely 2004; Plater et al. 2009), as well as understanding of world issues (Kiely 2004; Riner, Bai, and Larimer 2015); experience personal growth (Hartman and Kiely 2014; Kiely 2004; Riner, Bai, and Larimer 2015); develop international perspectives (Riner, Bai, and Larimer 2015); learn to interrogate local and global interconnectedness (Hartman and Kiely 2014); and examine their own value and belief systems (Riner, Bai, and Larimer 2015). But the interdisciplinary potential of global service learning is a benefit that is an often undermentioned in the literature. Global service learning has the potential to bring together students from diverse disciplines to examine challenges facing society. With these interdisciplinary perspectives, students are more likely to develop innovative ideas that advance the problem-solving process.

Example: Global Service Learning and Professional Preparation

In the field of health care, the growth of interprofessional education—where educators and learners from at least two health professions collaborate in a single learning environment—has contributed to the development of global service-learning programs. Since 2008, the American Association of Colleges of Nursing, the American Association of Colleges of Osteopathic Medicine, the American Dental Association, the Association of American Medical Colleges, and the Association of Schools of Public Health have all added language supporting team-based education to their list of expected competencies for graduates in their disciplines (Interprofessional Education Collaborative Expert Panel 2011). Participation in team-based education increases students' confidence in their professional identities, encourages students to value other health professions, and better prepares students for patient

care activities (Dacey et al. 2010). Global service learning can provide students with this type of preparation.

For nursing students and others in the health professions, global service learning provides enriching experiences in culturally different environments, both within and outside of the United States. In their research on global service learning for health science students, Jones and colleagues found that students benefit from experiences with unfamiliar health care systems (at home or abroad) and are better prepared to work with diverse cultures in the United States when they enter their professional placements after having such experiences (Jones et al. 2010). Key to these experiences' effectiveness is the practice of identifying, before the experience, the specific tasks students should be able to do based on their course knowledge and competencies. Students should not engage in more advanced work in the local or international placement than they would under direct supervision of their faculty in any other course (Jones et al. 2010).

Since 1998, the Indiana University (IU) Schools of Dentistry, Medicine, and Nursing at IUPUI have worked with university and community partners in the State of Hidalgo, Mexico, and the Indianapolis community to develop global service-learning experiences for students. Over the course of the partnership, interdisciplinary teams have provided primary care, dental care, and health education in partnership with hospitals in Pachuca, Hidalgo; the Autonomous University of the State of Hidalgo (UAEH); community leaders in the town of Calnali, Hidalgo; and Friends of Hidalgo, a community organization in Indiana established by a Calnali native. Students from the medical, dental, and nursing schools have worked together with their Mexican counterparts on these projects. Through collaboration with municipal governments, these interdisciplinary teams have produced work, including a health care needs assessment, that has informed health care practice and policy in and around Calnali. UAEH also has created opportunities for medical and dental residents as a result of this collaboration.

Over time, participating scholars and researchers established IUPUI's Binational/Cross Cultural Health Enhancement Center, which conducts translational research projects to improve health and well-being for the Latino population in Indiana. As a result of these research projects, IUPUI students have opportunities to engage in global service learning in the Indianapolis community and in partnership activities in Mexico.

Conclusion

As institutions prepare students for the global challenges of today and tomorrow, they must provide opportunities for students to collaborate with people from different backgrounds, engage with diverse opinions, and solve problems by incorporating multiple perspectives. Encompassing such opportunities in both local and international settings, global service learning is a powerful, transformative practice that all students should have an opportunity to experience.

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[ENGAGING GLOBAL CHALLENGES]

More than Bells without Clappers:
Students Finding Voice through Civic Engagement with Big Questions

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- **LYNN ROBERTSON,** professor of television production at Delgado Community College

With the national conversation about college emphasizing timely degree completion and readiness for employment, how can community college educators prepare our students to tackle the big questions they currently experience and will further confront in the complex, changing environment of our interconnected global future? A reductionist emphasis on employment readiness may limit students' ability to recognize, understand, and use the levers of social and political change and power. Will our graduates be like bells without clappers—voiceless and lacking resonance? How will this voicelessness affect their lives, their liberty, and their pursuit of happiness?

In a project funded by the Teagle Foundation, housed at the Community College National Center for Community Engagement (CCNCCE), and led by Kapi'olani Community College, faculty at six community college campuses—Kingsborough Community College and Queensborough Community College (New York), Raritan Valley Community College (New Jersey), Delgado Community College (Louisiana), Mesa Community College (Arizona), and Kapi'olani Community College (Hawai'i)—are actively engaged with questions like these. Through this project, titled Student Learning for Civic Capacity: Stimulating Moral, Ethical, and Civic Engagement for Learning that Lasts, faculty are implementing pedagogical, curricular, cocurricular, extracurricular, and assessment innovations across developmental, liberal arts, and career and technical education programs. These innovations address a single big question: *How do we build our commitment to civic and moral responsibility for diverse, equitable, healthy, and sustainable communities?*

This big question has implications across the nation and the planet, manifesting differently in each of the unique communities, economies, and ecosystems served by the six participating colleges. Between six and twenty faculty members at each college, teaching over fifty class sections and reaching a thousand students, are addressing the question in their curricula through topics that weave from local to national to global, including environmental sustainability, climate change, human trafficking, poverty, homelessness, health, and immigrant adaptation, using high-impact practices (described in Kuh 2008) such as service-learning, undergraduate research (see Franco 2010), civic engagement, and global and diversity learning. Below, we highlight courses that are addressing global topics at participating campuses and share assessment tools and early evaluations from the project.

Environmental Sustainability

At Raritan Valley Community College, Jay Kelly, assistant professor of biology and environmental science, is training community college students as citizen scientists. In partnership with the New Jersey Audubon Society, students in Kelly's environmental field studies course assess forest conditions in central New Jersey and work with local officials to improve forest health through science-based solutions. Students seek to understand what is needed to maintain the health of local forests as human population densities rise and urban and suburban development increases. Kelly's students engage with issues affecting forest ecosystems in New Jersey, the eastern temperate forests of North America, and around the world.

One rapidly increasing threat to ecosystems around the world is the threat posed by introduced species, which can negatively affect biological diversity and endanger environmental sustainability. At Kapi'olani Community College, an environment and ecology laboratory course for nonmajors taught by Wendy Kuntz, assistant professor of ecology, is structured around a community-based ecological restoration project focused on the impact of introduced algae

species in the local marine ecosystem. Working directly with the local chapter of the Nature Conservancy and Mālama Maunalua (a community-based organization), students learn ecology skills and techniques to monitor algae diversity while removing invasive algae. The semester culminates in a scientific poster session where student teams present their results to the community. Since the project's initiation, more than 150 students have removed over fourteen tons of invasive algae. Students who participate report having a greater understanding of the issues surrounding introduced species and a deeper appreciation of the importance of science in addressing both local and global environmental challenges, compared to earlier in the semester.

Faculty at Delgado Community College in New Orleans are engaging students in issues related to Louisiana's declining shoreline, which is still feeling the effects of Hurricane Katrina and the 2010 BP oil spill. Inspired by an article that highlighted how Louisiana is losing its boot shape to coastal erosion (Anderson 2014), Associate Professor of Speech Communication Jenny Louis asked students to research the topic in small groups and find a way to present it to the public. To display their findings, the students created a website, www.savedatboot.org. In another course, Lynn Robertson, professor of television production, asked her students to create ten-minute documentaries focused on local issues. One student's documentary highlighted individuals who are trying to make New Orleans more bike-friendly, promoting the idea of bicycling as an environmentally friendly commuter option.

At Kingsborough Community College, a marine technology course titled Vessel Technology 1, taught by professor of maritime studies Donovan Withers, promotes an ethic of, and skills central to, sustainability learning. Students in this course collect used cooking oil from on-campus cafeterias and local businesses for conversion into fuel used by boats in the college's maritime studies program. This course helps students fulfill Kingsborough's recently implemented civic engagement graduation requirement, which requires two cocurricular, extracurricular, and/or curriculum-based experiences.

Human Trafficking, Homelessness, and Health

Faculty and staff at Mesa Community College have infused human trafficking awareness into administration of justice, counseling, social work, and nursing courses. Faculty, staff, and students from those courses conducted human trafficking trainings for more than 1,500 people. Their purpose was to bring awareness to the campus, educators, medical professionals, high schools, and the public about the signs of human trafficking and its effects on the community. Faculty and students created brochures, PowerPoint presentations, and public service announcements to share with educators, health care professionals, and other students at these trainings. Mesa social work professor Rose Marie Lichtenfels and student Valerie Le Grande, who helped lead the college's effort, also conducted trainings at the 2014 CCNCCE conference, which focused on Human and Sex Trafficking, prompting participants from dozens of community colleges to explore the civic and moral dimension of this global issue.

Since fall 2010, Queensborough Community College (QCC) has conducted the Picture Me in College project. Working through community-based organizations, QCC art faculty member Liz Di Giorgio invites children from local transitional housing programs to participate in her drawing class. While drawing the children's portraits over the course of three class sessions, Di Giorgio's art students engage the children in conversation

As part of the Picture Me in College project, art students at Queensborough Community College create portraits of students from local transitional housing programs. (Image courtesy of Queensborough Community College)

about their interests and dreams for the future. The college students help the children envision education as a path to a positive future and integrate an aura of optimism into their portraits. At the end of the term, the children receive colorful digital posters (transformed from simple pencil portraits), rolled and tied with ribbons to represent college diplomas. Supported by QCC colleagues Josephine Pantaleo and Meghmala Tarafdar, Di Giorgio uses the Picture Me in College project as a framework for exploring global poverty, homelessness, and issues of identity and equality.

At Raritan Valley Community College (RVCC), many service-learning programs directly address and ameliorate the nutritional needs of recent and growing immigrant communities. In RVCC's Trends in Nursing courses, taught by Susan Williams and Mary Balut (both associate professors of health science education), students discovered through community-based research that

dependency on local food banks was increasing as new populations turned to these community resources. After finding that fresh fruits and vegetables were in short supply at local food banks, students developed a Squash Hunger: Produce for Pantries project. Through this project, students obtained fresh produce from local grocery stores and community members, supplementing the processed foods that are disproportionally present in food bank clients' diets.

Qualitative and Quantitative Assessment Findings

In addition to sharing curricula and pedagogical strategies, faculty from the six colleges are using a shared quantitative pre- and post-course survey as well as a set of shared qualitative reflection prompts that students address in their end-of-term capstone essays. For the survey, students in courses that address the project's big question rate their agreement with a series of items according to a five-point scale, with responses ranging from "completely agree" to "completely disagree." In the first semester of using these assessment instruments (fall 2014), students who participated in service-learning courses at the six community colleges showed statistically significant gains on the following items:

- We need to change people's attitudes in order to solve social problems.
- It is very interesting to listen to others who have viewpoints very different from my own.
- I have helped my community work toward a smaller carbon footprint.
- In order for problems to be solved, we need to change public policy.
- Each of us has a duty to provide service to underserved populations.

For their end-of-semester capstone reflection essays, students addressed the following prompts:

- Identify the issue you focused on, and explain how it relates to diversity, equity, health, or sustainability. Describe activities you engaged in.
- Describe three to five central course concepts or theories that engaged you and deepened your understanding of the issue.
- Explain how coursework and activities have shaped your personal, change agent, academic, and/or career goals.
- What elements of unfairness or injustice does the issue have? Do you believe more people should care about the issue? Discuss possible solutions to the problem.
- Discuss in detail three actions you will take to reduce the impact of the problem.

Faculty scored the essays using a shared project-wide rubric, now in its third iteration. The campuses with the highest scores were those where faculty had most consistently integrated the prompts into course curricula over the course of the semester, using the essays as part of the course grade. In response to the last item, which asked students to plan their future commitments, students generally indicated plans to continue working with community service organizations, and some students also indicated that they planned to take another course or get a degree that would help them further address the problem.

The project team is currently revising and assessing both the quantitative and qualitative assessment tools, which will be disseminated nationally in 2017. Authors Acoba, Hiser, and Franco can be contacted for current drafts of these tools.

Conclusion

In April 2015, faculty participants from the six community colleges joined counterparts from four-year institutions participating in ten additional projects at a convening for the Teagle Foundation's Larger Vision for Student Learning program. At this convening, project participants realized a deeper purpose of their collaboration: America's 1,100 community colleges are places where many students of color, low-income students, and first-generation students are contemplating whether they belong in college, and to what end. Project faculty concluded that through curricula developed from research-based high-impact practices supporting student learning and engagement, their students could not only achieve institutionally prized degree completion goals, but also learn what it means to achieve "full participation" (see Sturm et al. 2011) in America's democracy, economy, and ecology in a globally interdependent era.

Participating faculty discussed the metaphor of a bell to capture the compelling work before them and their students. Preparing students to graduate without civic engagement and learning would be like a shaping a bell without its internal clapper: the bell would not be heard; it would have no resonance. The bell of life, liberty, and the pursuit of happiness would be hollow, silenced. Only through engagement, learning, and achievement can students authentically succeed on campus, in their communities, in the nation, and in the world.

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[ENGAGING GLOBAL CHALLENGES]

Engaging Students with Global Challenges across the Curriculum

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Colleges and universities are seeking more effective ways to help students prepare for lives of global citizenship and impact. The most pressing problems facing the world—related to energy and the environment, food and water, public health, peace and security—are global in nature, and will require global solutions. At the same time, students increasingly recognize that their lives and careers will play out on a global stage, necessitating cross-cultural competencies and other skills for global engagement and understanding.

Approaches to helping students develop global awareness and skills vary widely, and can involve required courses, seminars, international experiences, and more. However, students are unlikely to develop global awareness and skills unless they can see how global issues relate to their future lives and careers, and unless they have opportunities to grapple with global problems. Global learning should be intentional: connected to student learning both in the major and in general education, and clearly situated at the center of the curriculum rather than at its periphery.

The WPI Plan: Developing a Global Mindset

Worcester Polytechnic Institute's (WPI's) focus is on engineering and science, with an emphasis on experiential learning: across the curriculum, students at WPI tackle authentic problems that are embedded in real-world settings. WPI's approach to undergraduate education focuses on the application of knowledge as well as the development of transferrable skills and abilities through a series of project experiences across all four years, both in the major and in general education.

The Great Problems Seminars (GPS): Capitalizing on the desire of first-year students to make a difference in the world, each of these optional six-credit courses has at its core one of the world's big problems, such as public health, water, food security, energy, or education. These courses are team-taught by two faculty members selected from different disciplines: for example, a course on energy might involve a mechanical engineer and a philosopher. In the first half of each course, students and faculty use a variety of sources to explore the depth, breadth, and complexity of the chosen problem, and to examine how different individuals might experience that problem based on their location, age, socioeconomic status, and other circumstances and characteristics—all while developing teamwork, research, writing, and presentation skills. In the second half, students divide into teams; each team selects a small piece of the global problem and devises a potential solution. Deliverables include a poster presented to the entire campus community and a written report.

The GPS projects are largely theoretical, though student teams have formed companies to raise money for wells in Togo, Africa; developed and implemented educational units for local elementary school children; worked with nongovernmental organizations (NGOs) to provide business plans for village soap-making enterprises in Kenya; and more. These early project experiences provide students with valuable contexts for their further global learning, giving them awareness of the skills and abilities they need or would like to have upon completion of their degrees. These projects also help students develop confidence in their ability to tackle complex, open-ended problems, and many students develop a strong sense of mission that informs their later work.

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The Humanities and Arts Requirement: Each student at WPI is asked to choose an area of the humanities and arts on which to focus. Similar to a minor, the eighteen-credit-hour Humanities and Arts Requirement sets the expectation that each student will explore an area in depth and will produce a culminating project involving original research or creative work. After selecting a series of courses in a chosen area, each student works closely on an independent project with a faculty advisor through a research seminar or a performance practicum.

Students interested in literature might complete their requirement in London, exploring Dickens's world; students focusing on Arabic language and culture may spend time in Morocco, researching cultural questions in the medina of Rabat. On campus, students of history

might investigate the evolution of scientific thought in the nineteenth century, and students interested in music might create and perform original compositions. In each case, students are asked to connect their projects with their passions and previous learning to do something new.

The Interactive Qualifying Project (IQP): The IQP is a general education requirement that challenges small teams of students to address interdisciplinary projects relating science or technology to social issues and human needs. While it is equivalent to three courses, the IQP is not organized as a course; instead, each student team tackles an authentic problem under faculty direction. Most problems are posed by nonprofits, NGOs, or government agencies, and 70 percent of students complete their projects off-campus through WPI's Global Projects Program, a network of programs in forty domestic and international locations.

Students at WPI's Cape Town, South Africa, Project Center collaborate with community members, NGOs, and local government agencies to advance efforts in informal settlements—developing water and sanitation facilities, early childhood education programming, and strategies for upgrading housing. In Costa Rica, students—many of whom first complete their Humanities and Arts Requirement by studying Spanish language and culture—work to promote sustainable aquaculture and preserve coastal habitats. Project groups in Venice focus on canal management, public art preservation, and impacts of tourism; project groups in Thailand promote sustainable agriculture in rural areas and investigate how to better communicate environmental risks to vulnerable communities. Closer to home, students have promoted food security in Central Massachusetts by helping to create a food hub that connects local farmers with underserved urban areas.

Students conduct a feasibility study of the Arenal Volcano Wind project in Costa Rica. (Photo courtesy of Worcester Polytechnic Institute)

In each case, the IQP emphasizes helping students understand that problems are situated in cultural and social contexts, and that project teams must take those contexts into account in order to develop appropriate, sustainable solutions. Faculty advisors work closely with student teams to guide their research, whether it occurs abroad or domestically. Students' research typically focuses on the perspectives of local stakeholders—ensuring that students gain greater appreciation for the viewpoints and concerns of others.

The Major Qualifying Project (MQP): Each student completes the nine-credit-hour MQP as a capstone or research project in the major. These projects, like the IQP, are not organized as courses, but around authentic problems. Projects are advised by faculty and usually tackled in teams, frequently with an external sponsor. As appropriate for each major, students delve into scientific research, write original papers, design assistive devices, or create deliverables to address the challenges identified by project sponsors. Whether designed as part of a faculty research program or in response to the needs of an external organization, the MQP, like many capstone projects, allows students to synthesize their knowledge and apply it as budding professionals.

While many MQP projects take place on campus, students have the opportunity to complete their projects at sites across the United States and abroad. Chemical engineering majors work in labs in Nancy, France, to analyze water quality; industrial engineering students work in Beijing on manufacturing challenges posed by Chinese firms. Each project is documented in a report written in professional style that the student presents to the WPI community and, if relevant, to the sponsor. Students completing their MQP learn by integration into the professional community about local and global standards for practice, behavior, and ethics as they prepare to leave college and begin their professional lives.

Challenges and Rewards

A project-based approach to global learning, whether incorporated into individual courses or designed as part

of an experiential curriculum, demands significant effort from both faculty and students. Because no authentic problem is the same as any other, and because each project team has a different dynamic and skill set, there can be no cookie-cutter approach. Faculty and students alike must engage deeply with the problem and with each other.

The work, however, can be highly rewarding. The use of authentic problems to promote global learning provides significant extrinsic motivation for both faculty and students. Further, students who engage in project-based learning enjoy increased employability. A recent study commissioned by the Association of American Colleges and Universities revealed that students and employers highly value applied learning experiences as well as "written and oral communication skills, teamwork skills, ethical decision-making, critical thinking skills, and the ability to apply knowledge in real-world settings" (Hart Research Associates 2015, 4). Alumni of WPI's project-based curriculum report that their undergraduate project work was highly effective in developing those skills and abilities, particularly for those who completed at least one project off campus (Vaz and Quinn 2014). Alumni also credit authentic project work conducted off campus for helping them develop a greater appreciation for other cultures and people, a greater sense of self-efficacy, and stronger personal character—all essential elements for those who would tackle global problems.

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[PERSPECTIVE]

The Physics of Changing the World

LUKE R. PERREAULT, 2015 graduate of Worcester Polytechnic Institute

As a freshman at Worcester Polytechnic Institute (WPI), I learned Newton's Third Law: for every action, there is an equal reaction. Thus, when you jump up, you move the world down, just a tiny bit. Everyone is a world mover.

To me, that means every action can have global implications. But I didn't see that as a freshman. Until I went to college, my perspective didn't extend beyond the predominantly blue-collar, old Massachusetts mill town in which I was raised. I wanted to be a biomedical engineer and make great changes in the world. But to change the world, you have to think globally, realizing your impact on other communities worldwide. At WPI, three projects—the Humanities Sufficiency, the Interactive Qualifying Project (IQP), and the Major Qualifying Project (MQP)—teach students how to think at that scope. To be a great engineer, I had to *realize* I was a world mover. Through my WPI projects, I learned how.

Part of creating positive change is realizing that in an interconnected community, what you do affects the lives of others. I learned that lesson through my Humanities Sufficiency, in my sophomore year. I conducted my project with the WPI Jazz History Database, a digital jazz archive, where I archived recordings of local jazz musicians. I thought the project would be a dull graduation requirement. But when I began interviewing musicians, I saw their passion for their music and their appreciation for the archivists' help. I realized that the database provided a means for local artists to preserve some essence of a life's work. My project had *purpose*: to help artists share a lifetime of music with the world.

I sought that kind of purpose in my junior-year IQP, at the London Transport Museum in London, England, where I developed materials to educate children about transportation engineering. Working in a foreign country far from home and from WPI put me well out of my element, but it let me engage with the wider world. As part of an educational initiative designed to inspire the next generation of engineers, I could see myself making an impact on a level I had never expected.

Part of creating positive change is realizing that in an interconnected community, what you do affects the lives of others.

A year later, through my biomedical engineering MQP, I helped build a low-cost alternative to a cardiac tissue-engineering device. I walked into that challenge appreciating its potential. WPI had taught me to think globally—to see my senior project as a chance to advance medical research.

There is self-worth in finding your potential to change the world. A WPI education taught me that being a world mover isn't impossible: it's just physics.

[PERSPECTIVE]

Educating for Religious Pluralism and Inclusive Citizenship

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In *One World: Ready or Not*, William Greider describes globalization as "a wondrous free-running process that is reordering the world" (1997, 11), resulting in "an economic system of interdependence designed to ignore the prerogatives of nations, even the most powerful ones" (17). Greider argues that such interdependence requires a new global consciousness—one accepting of the idea that "humanity is now a shared enterprise" (468–69). Greider's words suggest a new global humanism in which the dignity of one human being is indivisible from that of any other.

What kind of education do students and society need to advance such global humanism? Philosopher Martha Nussbaum writes of "an education based on the idea of an inclusive global citizenship and on the possibilities of the compassionate imagination" that "has the potential to transcend divisions created by distance, cultural difference, and mistrust" (2004, 42). Nussbaum suggests three crucial capacities of a responsible, globally minded citizenry in a pluralistic democracy: critical thinking, the ability to bridge and understand different cultures and religions, and the ability to imagine the situations of others and sympathize actively with them (1998).

I believe that the interreligious understanding and engagement of which Nussbaum writes is an important component of teaching students to understand and address the consequences of globalization at home—especially in the United States, arguably the world's most religiously diverse nation (Pluralism Project n.d.).

> Interreligious understanding and engagement … is an important component of teaching students to understand and address the consequences of globalization at home.

Such understanding is both imperative to America's global competiveness and national security and an effective approach to addressing global interreligious conflict and extremism.

Interreligious Understanding

As the Islamic world undergoes tumultuous reformation, it is critical that Americans of all backgrounds see our interdependence with those in majority-Muslim countries and seek compassionate and energetic engagement across our differences. While Muslims are about 1 percent of the US population (GhaneaBassiri 2010, 2), almost one quarter of the world's people are Muslim (Pew Research Center 2011); and by 2050, the world's Muslim and Christian populations will be equal in size (Pew Research Center 2015). Enormous ethnic, racial, and theological diversity is found within the Muslim population, in the United States and globally. Experts generally agree that jihadism, the violent extremist interpretation of Islam, is followed by, at most, 0.1 percent of Muslims (LaCasse 2015). So how can we engage across our differences to defeat jihadism and avoid destructive calls for a "war on Islam" that come from some quarters?

The Pluralism Project at Harvard University provides an excellent paradigm. Its director, Diana Eck, distinguishes between "diversity" and "pluralism," noting that "mere diversity without real encounter and relationship will yield increasing tensions in our societies." In contrast, "pluralism is the encounter of commitments. It means holding our deepest differences, even our religious differences, not in isolation, but in relationship to one another" (Eck 2006). In the face of modern interreligious conflict, this idea of pluralism is more important than ever. As we have sadly witnessed in the allied war against the self-described Islamic State of Iraq and Syria (ISIS), military power alone cannot eradicate jihadism and end the flow of alienated and disaffected youth to ISIS's ranks. Instead, it is through pluralism and by creating common ground that we can find a lasting solution to violent extremism.

In contrast to European Muslims, American Muslims are relatively well-integrated and prospering, mainly due to a longstanding national framework of religious inclusion (*The Economist* 2014). Such a framework of inclusive citizenship for Muslims began with Thomas Jefferson, who purchased a copy of the Quran eleven years before composing the Declaration of Independence (Spellberg 2013). Denise Spellberg writes that "Jefferson could imagine Muslims as future citizens of his new nation" (3), even though they were then deemed the ultimate outsiders in Western

society and not even known to exist in the colonies. Jefferson and a few other exceptional founding fathers created an unprecedented, uniquely American model of religious pluralism and universal citizenship that would encompass not only future Muslims, but also contemporary religious minorities such as Catholics and Jews. The contentious public debate concerning inclusion of Muslims "set the parameters of religious freedom and civic inclusion for all non-Protestants" (271), ultimately leading to the decision not to establish a Protestant nation. Thus Jefferson's founding ideal of inclusive citizenship for Muslims became the essential historical backdrop for today's national framework of integration. Poignantly, Jefferson's Quran was used by the first American Muslim in Congress, Keith Ellison, to take the oath of office in 2006.

But the ideal of inclusive citizenship that existed at our country's creation is not well known, despite its fundamental implications for our future. Nor is the interrelationship between Islam, Judaism, and Christianity. As scholar Richard Bulliet has written, "The past and future of the West cannot be fully comprehended without appreciation of the twinned relationship it has had with Islam over some fourteen centuries. The same is true of the Islamic world" (2004, 45). Scholars like Bulliet have urged that we not miss the opportunity to focus on common ground for building a common future and lasting peace together.

Implications for Higher Education

With a "diversity explosion" (Frey 2014) coming in the next few decades, our campuses will increasingly resemble miniature global societies with tremendous cultural and religious diversity that we can actively engage to cultivate the capacities for global humanism for which Greider, Nussbaum, and Eck argue. Engaging with globalization at home should not be seen as an "add-on," as educating our students for inclusive global citizenship is essential for their success in the twenty-first century.

Many of our large urban community colleges serve as vital interfaces connecting the local and the global. My own institution, Kingsborough Community College (KCC), is a global village in its own right, with students representing 142 national backgrounds and speaking seventy-three languages. The community beyond our campus in Brooklyn is the second most diverse community in the United States (Davidson 2010). At colleges like Kingsborough, faculty and students can engage with globalization at home by engaging the incredible national, cultural, and religious diversity in our midst.

In addition to sending students to the Salzburg Global Seminar and other study abroad opportunities, Kingsborough's faculty are providing meaningful opportunities for students to learn about and practice inclusive global citizenship at home through programs and activities such as the National Model United Nations, the Student World Assembly, the KCC Common Reading, and the Annual Eco-Festival, as well as grant-funded projects such as Bridging Cultures to Form a Nation and Brooklyn Public Scholars. We are about to establish a vibrant Intercultural Center and Student Union, where our various global, intercultural, curricular, and cocurricular programs and activities can cohere, expand, and find support.

In this time of conflict and opportunity, we must take advantage of our interdependence to advance religious pluralism and inclusive global citizenship. We must leverage the great cultural and religious diversity of the United States and educate our students to become successful twenty-first-century global citizens.

Editor's note: This article originated in an address on "Globalization at Home" presented at the Annual Meeting of the Association of American Colleges and Universities in January 2015. To download a podcast of the original address, visit http://www.aacu.org/meetings/annualmeeting/am15/podcasts.

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[PERSPECTIVE]

An Equity Lens for Global Education

VIJAY PENDAKUR, associate vice president for student affairs at California State University–Fullerton

I remember the weeks of celebration in DePaul University's Office of Multicultural Student Success when one of our top students, Jordan, was accepted into a prestigious, yearlong study abroad program in Sweden. The office worked primarily with low-income, first-generation college students of color, and Jordan had been an active participant in our retention and persistence programs for several years. His successful application to the Sweden program was a victory for the whole office.

A week before Jordan was to leave the country, I chatted with him about his trip. He was nervous and excited to spread his wings. Like many of his black peers from Chicago's underresourced South Side, he hadn't traveled much outside of Chicago, let alone internationally. Like a good student affairs educator, I asked specific questions about his pretrip preparation. I can distinctly recollect the sheepish look that crossed his face when I asked how his packing was proceeding. In response to some careful, sensitive probing, Jordan revealed that he didn't have a suitcase, and that no one in his family could afford to buy him luggage.

I was shocked and upset—not with Jordan or his family, but with myself and my team. As empowerment agents for low-income students of color, how could we not have considered the numerous barriers to international travel facing Jordan and others in his situation? The majority of our students struggle just to keep up with college costs, so where would they find extra finances to purchase the materials necessary for international travel? In the years following our experience with Jordan, the Office of Multicultural Student Success worked to structure a scholarship that specifically supported the sundry costs that can make or break a study abroad experience for low-income college students.

In the context of study abroad, an equity lens challenges us to centralize students' identities when considering their global experiences.

An Intersectional Approach

As the story above suggests, my perspective on global learning emerges from years of working with low-income college students and students of color who, like so many of our students, aspire to have a global learning experience. Over the years, I have come to see two sets of practices and dialogues that, while typically separate, must be shifted into an intersectional approach to engender more equitable outcomes for all students.

The first set of practices and dialogues focuses on the core concepts of identity, power, oppression, privilege, and social justice. These practices and dialogues are typically housed in institutions' multicultural offices, which were born out of campus agitation and social movements tied to civil rights struggles and which remain focused on the long history of contestation for dignity among people of color and the poor in the United States. The second set of practices and dialogues, typically housed in international education and study abroad offices, focuses on cross-cultural exchange, global citizenship, and geopolitical understanding formed through international encounter. As Caryn McTighe Musil, Chad Anderson, and Eleanor Hall have argued, the learning goals associated with these focus areas should also encompass concepts like "decentering Europe" and "subalterneity" (2012)—suggesting potential connections between the global learning movement and the multicultural movement.

An intersectional approach to these two important movements could and should involve applying an equity lens to global education. As detailed in the Association of American Colleges and Universities' publication *Step Up & Lead for Equity: What Higher Education Can Do to Reverse our Deepening Divides* (2015), equity-mindedness involves, in part, a "willingness to look at student outcomes and disparities … disaggregated by race and ethnicity as well as socioeconomic status" (4). In a global learning context, an equity lens challenges us to ask the key question: *How do I ensure that all students experience similarly high-quality outcomes as a result of their global learning experiences?*

Equity in Study Abroad

In the context of study abroad, an equity lens challenges us to centralize students' identities when considering their global experiences. Who students are, including their racial and class identities, is an important part of how they might experience global learning, and

it affects the outcomes that might result from their time abroad. Thus an equity-focused study abroad program must contend with students' identities, such as race, class, sexual orientation, faith, or gender, which serve as foundations for how students experience the world. Domestic approaches to multicultural education reflect an understanding of this dynamic, placing learners' identities at the forefront of program designs. International programs would benefit from a similar approach.

Furthermore, a student's visible identities, such as race or gender expression, can be the surface on which the world projects its understanding of the student. Before departure, educators must engage and support students so they understand how their identities might interact with the culture and customs of the international locations they plan to visit. For example, faculty and staff who are preparing a black transgender student to study abroad in Qatar must engage and support that student in understanding how black and transgender identities might interact with the culture and customs in Qatar. In contrast, faculty and staff who are preparing a low-income student to study abroad in Scandinavia, where the basic cost of living can be challenging to manage, must focus the pretrip education on financial literacy and, if necessary, provide additional financial support. In both examples, the student cannot hope to experience the same transformative learning outcomes as his or her peers with relative privilege if the institution does not apply an equity lens when structuring study abroad programs.

To apply an equity lens to study abroad, consider these questions in your campus efforts:

- How are aspects of identity—such as race, sexual orientation, and class—accounted for in the ways you select students and prepare them for study abroad experiences?
- How are faculty and staff trained and empowered to meaningfully engage questions of identity and equity before, during, and after study abroad?
- How can the institution take an intersectional approach to blending canonical multicultural and diversity practices with global learning programming to produce study abroad experiences that are not only enriching, but also safe and equitable for all learners?

Risks of Disconnection

Musil (2010) and Musil, Anderson, and Hall (2012) challenge us to consider the consequences of disconnecting the global learning agenda from the civic and diversity agendas. The results could be everything from "weakened conceptual frames" for student learning to "minimized transformative impact on the academy" (Musil, Anderson, and Hall 2012). It is imperative that we expand this understanding of risk and consequences to include the risks of failing to use an equity lens.

It is not enough to invite low-income students, first-generation students, and students of color into the movement for global education; in the case of study abroad, we must alter our preparatory programs, curricula, and re-entry programs to ensure equal outcomes for all learners. By considering the critical role of identity in how we design study abroad programs from the outset, and how we train faculty and staff to engage learners in the experience, we can begin addressing the barriers to access, moments of alienation, and dampened transformation experienced by some participants.

In Jordan's case, once the Office of Multicultural Student Success had a clear understanding of the unaddressed challenges, we networked with partners across the university to get Jordan the materials he needed. As the academic year progressed, we occasionally received a postcard or letter from Jordan detailing a new revelation from his coursework or from a weekend trip to another country. When Jordan dropped by the office the following summer to say thank you and show off his photos, the value of our efforts to apply an equity lens to global educational experiences was clear.

The student cannot hope to experience the same transformative learning outcomes … if the institution does not apply an equity lens when structuring study abroad programs.

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[PERSPECTIVE]

International and Interdisciplinary Collaboration: Implications for Undergraduate Education

HARVEY CHARLES, former vice provost for international education at Northern Arizona University and dean and vice provost for international education at the University at Albany, State University of New York

There has never been a time when higher education has not been in transition. But at no time other than the present has change been so comprehensive, so consequential, so radical, and so dynamic. The rapid expansion of postsecondary institutions around the world, the meteoric rise in students' international mobility, the explosion of international collaboration in research, and the growing experimentation with multiple modes of content delivery all exemplify the broad sweep of change occurring in higher education today.

What all these changes have in common is the transformative hand of globalization. Manifest in practically all domains of human endeavor, globalization "is the most important contextual factor shaping the internationalization of higher education" (International Association of Universities 2012, 1). The question is not *whether* higher education should respond to globalization. Instead, it is *how* higher education can best meet its core responsibilities by harnessing the opportunities and negotiating the challenges that globalization presents.

Collaborative Approaches

Historically, higher education's core responsibilities have involved pursuing new knowledge and preparing students with the skills, knowledge, and dispositions they need to be productive and successful citizens. Today, higher education must continue to meet these responsibilities in a substantially altered environment where the major challenges facing humankind are global in nature and require insights from the best and brightest minds across multiple disciplines. The scholarship, teaching, and learning that are necessary in this context are characterized by interdisciplinary and international collaboration.

Interdisciplinarity allows scholars to use "insights, methods, principles, and even hunches" from multiple epistemological traditions in order to "push the boundaries of knowledge and open up new vistas of discovery and innovation" (Charles 2014, 2). Climate change and cybersecurity are two examples of global challenges that require precisely such an approach. Like interdisciplinarity, international collaboration has key benefits related to addressing global challenges. There is a growing body of evidence—see Katz and Hicks (1997), Sooryamoorthy (2009), Narin and Whitlow (1990), and Freeman and Huang (2014)—suggesting that the best science, measured by frequency of citation, "involves collaboration across national borders in research teams that are diverse" (Charles 2014, 2).

How can faculty and administrators transform these compelling ideals into curricular practice? At Northern Arizona University (NAU), a number of scholarly projects (supported by grants provided, in part, by NAU's Center for International Education) confirm that teaching and learning can benefit from interdisciplinary scholarship that involves international collaboration and is globally focused.

> Interdisciplinarity and international collaborations are becoming increasingly significant features of twenty-first-century scholarship, and such commitments ultimately affect the teaching and learning that occurs in the academy.

Challenges and Projects

Human interaction with the landscape over thousands of years has led to the loss of biodiversity and devastating environmental change around the world. Scott Anderson, professor of paleoecology, is collaborating with scholars from France and Spain in disciplines that include paleoecology, landscape archaeology, and land use history to examine the effects of such interaction. Anderson has used project findings in a course on historical ecology that examines the record of human-landscape interaction in sites such as Norway, Mexico, and southern Spain. In another course, Southwest Environments through Time, Anderson has used project findings to discuss land use practices by Spanish colonials who drew on their culture when creating "transported landscapes" along the California coast. These courses provide students with perspectives on human-landscape interaction derived from examples around the world while illustrating how scholars apply their own disciplinary lenses to amplify various aspects of the subject.

Although indigenous people exist all over the world, individual groups may be small and lacking in resources and therefore may not command the attention necessary to advance their respective agendas. In the aggregate, however, these groups often share struggles around political exclusion, the preservation of culture and languages, issues of land rights, and access to educational opportunities. Five years ago, a working group formed by Michelle Harris, professor of sociology, brought together scholars from various locations and multiple disciplines, including sociology, history, philosophy, media, film, literature, and anthropology, to examine the issue of indigenous identity. Among the many outcomes of this group's scholarly collaboration is a course titled Indigenous Identities in a Global Context, which Harris and a colleague at the University of Wollongong, Australia, will team teach in fall 2015. One of the pedagogical tools developed for this course is a series of video clips of scholars talking about their publications related to indigenous identity—expanding on ideas raised in course readings, posing questions, and articulating their discipline-based perspectives on topics addressed in class. In exposing students to various interdisciplinary and international perspectives, this tool deepens student learning.

Disease caused by infectious bacteria constitutes a significant challenge to human health around the world. Working with colleagues from Brazil and Malaysia representing disciplines such as biochemistry, microbiology, computer science, and chemistry, Andrew Koppisch, professor of chemistry and biochemistry, is conducting research that addresses this challenge. Since most bacteria need iron in order to grow, thrive, and become infectious, finding ways to stop enzymes from acquiring iron is one crucial approach to defeating pathogenic bacteria. The research team has identified molecules involved in inhibiting enzymes that capture iron and has developed detailed models that predict possible interactions between these molecules and iron-capturing enzymes. Koppisch has used findings from this work in courses like Fundamentals of Biochemistry, where students test the effect of such molecules on microbial cells.

Finally, the threat of future energy shortages and the deleterious effects of fossil fuel use make renewable energy sources imperative for human survival and progress. John Gibbs, professor of physics, is collaborating to address these issues with colleagues from the United Kingdom, Germany, and the Netherlands representing disciplines including physical chemistry, nanotechnology, physics, and material sciences. In this collaboration, US physicists will manufacture nanomaterials that they believe will allow for more efficient conversion of solar energy into electrical energy. Collaborators in the United Kingdom and Germany will establish the properties necessary to optimize efficiency. After the nanomaterials have been manufactured, a collaborator in the Netherlands will research their effectiveness in creating hydrogen and oxygen gases, elements that are central to solar energy conversion. Students enrolled in Gibbs' upper-division nanotechnology course will have an opportunity to learn about nanomaterials and their effectiveness in converting solar energy into electrical energy, benefitting directly from the latest findings of this collaborative research project.

Supportive Structures

Interdisciplinarity and international collaborations are becoming increasingly significant features of twenty-first-century scholarship, and such commitments ultimately affect the teaching and learning that occurs in the academy. Institutions that recognize this reality and act to support this agenda are well on their way to preparing students with the tools necessary to both understand and help solve the global challenges facing humanity. Northern Arizona University intentionally supports this kind of research and teaching through its Global and Interdisciplinary Research and Teaching Fund, which pools resources from the Office of the Vice President for Research, the Office of the Provost, and the Center for International Education. Faculty are invited to submit proposals that demonstrate international and interdisciplinary collaboration and also articulate the global nature of research and teaching objectives. Intentional engagement with interdisciplinary and international collaboration will create dynamic and exciting contexts for teaching, learning, and scholarship—contexts that may very well serve as models for excellence in higher education in the age of globalization.

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[CAMPUS PRACTICE]

Defining Global Learning at Florida International University

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STEPHANIE PAUL DOSCHER, associate director of the Office of Global Learning Initiatives at Florida International University

Florida International University's (FIU's) institution-wide Global Learning for Global Citizenship initiative is deeply informed by our experience of place. We are Miami's first and only public research university, a Hispanic-Serving Institution with over fifty-four thousand students, 55 percent of whom depend on Pell grants to complete their studies. The majority of our graduates hail from our city, a global crossroads, and go on to spend their working lives here. Our community members' knowledge and identities are constantly evolving in response to global issues that transcend borders of all kinds. For example, flooding streets affect our view of statehood: the nearby city of South Miami, led by Mayor and FIU Biology Professor Philip Stoddard, recently passed a resolution to secede from Florida due to state lawmakers' neglect of rising sea levels (Butler 2014). Our diverse ancestry influences the way we produce and consume information: Miami is home to a proliferation of immigrant newspapers, *periodiquitos*, which cover transnational problems of interest to readers attached to both their country of origin and their country of residence (Shumow and Pinto 2014).

Miami's multicultural populace and multifaceted problems drive our approach to learning about and resolving issues we encounter. We embrace global learning, which we define as the process of diverse people collaboratively analyzing and addressing complex problems that transcend borders. The global learning strategies we implement, in courses and activities at home and abroad, enable our highly diverse student body to engage with others to find connections among divergent perspectives. These connections are the bedrock upon which we learn to create innovative, equitable, sustainable solutions for our interconnected human and natural communities.

Essential Learning

At FIU, global learning is essential—not elective—for the twenty-first century. We provide every undergraduate with multiple opportunities to develop the knowledge, skills, and attitudes of global citizenship. Guiding the design of these opportunities is our North Star, which consists of three graduation-level outcomes: (1) **global awareness**, or knowledge of the interrelatedness of local, global, international, and intercultural issues, trends, and systems; (2) **global perspective**, or the ability to conduct a multiperspective analysis of local, global, international, and intercultural problems; and (3) **global engagement**, or the willingness to engage in local, global, international, and intercultural problem solving.

Since fall 2010, FIU has supported students' achievement of these outcomes through a two-course global learning (GL) requirement for all undergraduates. The more than 160 faculty senate-approved GL courses that fulfill this requirement are located in nearly every academic program. These courses fall into two categories: interdisciplinary foundations courses in the university's general education curriculum, and discipline-specific courses in major programs of study. Students entering as freshmen take one course in each category, and students transferring with sixty or more credits take two discipline-specific courses. All GL courses include active, participatory learning strategies; diverse, interdisciplinary, and intercultural content; and performance-based assessments. Students also participate in cocurricular activities to extend and enrich classroom global learning.

Diversity, Collaboration, Problem Solving

Diversity, collaboration, and problem solving—these conditions underpin our conception of global learning and its outcomes, and they are evident in our initiative's activities and organizational structures.

Our definition of global learning emphasizes learning *with* rather than just *about* diverse others. Most FIU undergraduates identify with historically underrepresented populations that are experiencing disproportionately negative effects of global problems such as environmental degradation and income inequality. These students' voices are critical to global learning in the classroom. Instead of conceiving of education as a means of conveying privileged knowledge to passive learners, FIU engages our diverse students' valuable first-hand knowledge of the forces that underlie our world's most persistent dilemmas, including poverty, violence, and racism. These dilemmas will continue to undermine everyone's well-being until everyone's wisdom is brought to bear on their resolution.

Collaboration also is essential to global learning and to implementing mutually reinforcing GL opportunities in the curriculum and cocurriculum. To this end, FIU's Office of Global Learning Initiatives (OGLI) supports a broad

network of institutional and community partners offering not only domestic GL courses, but also study abroad programs; global living/learning communities; and international internship, service-learning, and social entrepreneurship opportunities. The OGLI provides professional development focused on course and activity design to faculty, staff, and student leaders and offers annual fellowships for research collaborations between faculty and undergraduate students. Fellowship projects generate new knowledge that researchers bring back to the classroom to facilitate engaged global learning.

Finally, all GL courses present students with opportunities to grapple collaboratively with real-world problems experienced locally and globally. For example, several of the United Nations' Millennium Development Goals focus on health issues, and Florida is consistently among the top three states with the highest percentage of residents who lack medical insurance (Medalia and Smith 2014). In the interdisciplinary course Challenges in Healthcare, students from different majors work in teams to research the determinants of well-being in Miami's underserved neighborhoods. Using real street addresses, students use Google Earth and other sources to discover demographic variables and health markers such as the number of clinics, amount of green space, kinds of supermarkets, and cost of medicines in the area. Equipped with this information, teams design culturally appropriate health plans for families living at their assigned addresses. Classmates critique the plans and help develop concrete, diversified actions to overcome community healthcare obstacles.

More Is Better

As powerful as a single course or activity can be, our research has found that one experience is generally not enough to develop robust, transferable GL outcomes. Since 2010, we have conducted a longitudinal pre/post study of student learning using the Global Perspective Inventory (GPI) (Braskamp, Braskamp, and Engberg 2014), a survey with scales that align with our GL outcomes. Academic year 2013–14 was the first in which we were able to analyze a student cohort that had entered and graduated from FIU under the two-course GL requirement. It was also the first year that we found a statistically significant increase in students' average GPI scores for all survey scales (FIU 2014). Additionally, a quasi-experimental study of students' global learning revealed that those who entered GL courses having already achieved minimum levels of global awareness and perspective experienced significantly and disproportionately higher increases in these outcomes than students with little or no prior knowledge (Doscher 2012).

These results, along with student and faculty calls for more GL opportunities and Miami's ever-present need for active, prepared problem solvers, inspired us to launch the Global Learning Medallion program in fall 2014. This honor is conferred upon students who graduate having completed at least four GL courses, a significant number of GL cocurricular activities, a capstone project, and a personal reflection. Students value the medallion as recognition of their personal successes. But we believe that the strongest benefits will accrue not to individual students alone, but to Miami, home to an ever-growing contingent of engaged global citizens.

Florida International University students use multiple perspectives to solve a global problem. (Photo by Eduardo Merille)

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[CAMPUS PRACTICE]

Embracing Disturbances in Learning:
The Journey to Global Citizenship

NURIA ALONSO GARCÍA, associate professor of foreign language studies and global studies at Providence College

NICHOLAS V. LONGO, chair and professor of global studies at Providence College

What if we were to be together and listen to each other's comments with a willingness to expose rather than to confirm our own beliefs and opinions? […] When we are willing to be disturbed by newness rather than clinging to our certainty, when we are willing to truly listen to someone who sees the world differently, then wonderful things happen.

—Margaret Wheatley (2000)

What was the most meaningful learning experience of your academic journey? When we ask graduating seniors in Providence College's global studies major this question, they consistently respond with some version of *when I studied abroad*. It is perhaps not surprising that the impact of international immersion overshadows that of on-campus seminars, even those facilitated by talented and engaging faculty. Yet we would not want it any other way. Providence College's global studies major is designed to support the kinds of educational "disturbances" described by Wheatley (2000), which we firmly believe are essential for our students' development as responsible global citizens. We have come to realize that the most meaningful learning takes place outside the classroom (Longo 2007), where learners are able to address real-world problems while negotiating new sociocultural boundaries on their own. This learning can occur through engagement in local community-based settings (a signature aspect of our major) and is even more pronounced in international engagement (a requirement that underscores all aspects of our program).

Global Studies Frameworks

Global studies, launched as a program in 2005 and established as a department in 2013, is an interdisciplinary major focused on preparing the next generation to engage responsibly with our increasingly interconnected world. The global studies curriculum fosters learners' sensitivity to local cultures and identities as they develop their capacity to act as global problem-solvers and engaged citizen leaders (Alonso García and Longo 2013). With junior-year study abroad (lasting for a year, a semester, or a summer) at its heart, the curriculum provides a sustained, developmental, integrated experience that includes

- foundational courses, including courses in research methods, that unveil global dilemmas and support critical thinking through service learning and engaged research;
- interdisciplinary seminars on international politics, the philosophy of globalization, cross-cultural communication, world religions, and the global economy;
- individual learning plans with thematic concentration in a self-selected area; and
- advanced courses in foreign languages and global studies, including a yearlong capstone seminar.

Global studies helps students understand the intersection of the local and the international through experiential learning and leadership in the Providence community and around the world. The major is committed to sustainable partnerships with nonprofit organizations that support immigrant advocacy, youth arts literacy, English language learning, financial inclusion and development, and the study and practice of nonviolence. In their global studies courses, students participate in a variety of service-learning projects involving mentoring and teaching, interpreting and translating, facilitating diversity workshops, assisting with after-school programming, and organizing community events. We have found that connecting local and international engagement enhances students' understanding and appreciation of the interconnected world (essential for the study of globalization) and provides opportunities for students to participate responsibly in community problem-solving and reflection (essential to the practice of global citizenship).

When global studies majors pursue learning opportunities abroad, they face the challenge of reading a second culture sensitively—becoming aware of their own preconceived perceptions, suspending judgments, and adopting multiple perspectives simultaneously. Senge describes this practice as "turning the mirror inward" by "learning to unearth our internal pictures of the world, to bring them to the surface and hold them rigorously to scrutiny" (1990, 9). Even more significant is what happens when students return home, where they explore ways to act responsibly based on the pluralistic perspectives they developed abroad (Berwick and Whalley 2000). As Weinberg, Hovey, and Bellamy have noted, global citizenship is fostered not only by engaging in intercultural learning, but by reflecting critically on the relevance of such experiences upon returning to the local environment (2011).

Scaffolding the International Experience

In the global studies major, international experiences build on students' areas of interest while also challenging them through cultural immersion. To prepare for study abroad, students take a required one-credit **Global Engagement** course that fosters reflection and conversations about challenges and opportunities associated with cultural immersion. In this course, students learn to recognize the impact that deeply ingrained assumptions have on their perception of other cultures. They prepare to respond to cultural behaviors different from their own, and to engage in dialogue with individuals of a variety of cultural backgrounds.

For their study abroad experiences, students select from a list of programs, developed in collaboration with Providence College's Center for International Education, that include a service-learning, internship, or community-based-research component. For example, global studies majors have worked with youth in Nicaragua, researched women's rights in India, and interned at a company in China. Through experiential learning opportunities like these, students immerse themselves in social and academic environments, engage in field research, deepen their foreign language understanding, and become interculturally competent citizens.

The yearlong **Capstone** course addresses issues of reentry by providing opportunities for students to reflect on their study abroad experiences and complete culminating assignments that synthesize and deepen their learning. For instance, students begin the semester by developing a written and visual "global studies autobiography" and conclude by rewriting the "philosophies of global citizenship" they first composed during freshman year. The Capstone course's "engaged thesis" allows majors to study, as part of a collaborative global action project, a global issue that has come to have special significance for them. Examples of engaged thesis projects have included a documentary on immigration screened at a local cinema, a campaign to make Providence College a bottled water-free campus, a comparative study of approaches to youth violence prevention in Latin America and Providence, and a job training and education fair for refugee adults in collaboration with a local immigration center.

To provide additional opportunities for students to process their experiences, the global studies curriculum now includes a course specifically focused on reentry, called **Crossing Borders**. In Crossing Borders, students employ writing, storytelling, and active listening to reflect on their experiences abroad and what those experiences mean for their future work as global citizens. In the course, graduating seniors not only focus on making meaning of past experiences, but also apply these experiences to their professional and life decisions.

Finally, students document all their learning in an electronic portfolio called a **Curation of Learning**. In the Curation of Learning, students examine and reflect on their global studies experiences in order to create value and meaning that is understandable to a broader public, such as potential employers and graduate schools. Through meaningful digital exhibitions, students record their growth as global citizens and craft cohesive stories of their learning.

Lifelong Learning and Action

We hope that the global studies curriculum ultimately fosters a lifelong commitment to intercultural learning and responsible global action. While learning to listen authentically, respect local cultures, and balance inquiry and advocacy before taking action, students come to see themselves as global civic actors with agency to ignite change. The "wonderful things [that] happen" when students study abroad do not occur by happenstance, but as part of a journey supported by the global studies curriculum.

In the global studies major, international experiences build on students' areas of interest while also challenging them through cultural immersion.

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[CAMPUS PRACTICE]

Faculty Perceptions on Teaching Sustainability in Undergraduate STEM Curricula

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As part of its Liberal Education and America's Promise (LEAP) initiative, the Association of American Colleges and Universities (AAC&U) has noted the importance of several principles of excellence that could have a positive impact on twenty-first-century learning in STEM (science, technology, engineering, and mathematics). These include engaging students in "big questions"—complex issues that require a combination of disciplinary expertise; knowledge of society, culture, values, global interdependence, and the changing economy; and commitment to human dignity and freedom (National Leadership Council 2007).

The integration of sustainability into STEM curricula is a comprehensive mechanism for meaningfully engaging students in such "big questions" and real-world problems. Additionally, sustainability offers a specific domain for implementing high-impact practices in contemporary undergraduate STEM teaching. These practices—such as service learning and community-based learning, collaborative learning, capstone projects, and learning communities—are known to both deepen learning and increase engagement, especially for students from groups that have been historically underrepresented in higher education (Kuh 2008). Moreover, the applied and experiential learning required by many high-impact practices may be particularly effective for retaining women in STEM. Applied and experiential learning experiences can counter perceptions that STEM careers do not provide pathways to social change—perceptions that, according to Linda Sax (2001), sometimes deter women from pursuing undergraduate STEM majors.

Despite the benefits of infusing sustainability and related topics into undergraduate STEM curricula (Fry and Wei, forthcoming), limits in institutional resources and other barriers often inhibit widespread adoption of this strategy. Through the Sustainability Improves Student Learning (SISL) initiative, funded by the United States Department of Education's Fund for the Improvement of Postsecondary Education, AAC&U conducted seven listening sessions with STEM faculty members. Our findings not only lend credibility to the idea that infusing sustainability-focused content into STEM courses is an effective strategy, but also suggest insights into the perspectives of STEM faculty who implement this strategy.

Methods

As part of the SISL initiative, nearly fifty STEM faculty with expertise in a wide range of disciplinary areas participated in seven listening sessions, held either by teleconference or in person. Face-to-face listening sessions occurred at national meetings of the National Association of Biology Teachers and the American Association of Physics Teachers, and at the Biennial Conference on Chemical Education.

Using an inductive approach informed by grounded theory (Strauss and Corbin 1998), we analyzed transcripts of the listening sessions in order to organize the content and identify overarching themes. We also kept an inventory of the topics discussed by faculty participants. After organizing those topics into four major categories and further disaggregating the categories into nine general themes, we analyzed each transcript for the prevalence of the nine themes.

Results

STEM faculty identify benefits of integrating sustainability into the curriculum, both for students and for faculty. However, they encounter significant challenges when implementing this practice. Within the broad categories of benefits and challenges we identified, several themes emerged, shown in figure 1.

In every session, STEM faculty commented that incorporating sustainability into the STEM curriculum allows their students to apply disciplinary content to real-world problems and solutions. Nearly all participants in the listening sessions also indicated a high degree of fulfillment as a result of using sustainability in their courses. Additionally, faculty mentioned that incorporating sustainability into the classroom helps to focus student attention and promotes better retention of course content.

The most significant challenges identified by STEM faculty related to time constraints. Nearly all participants noted having limited time to prepare lectures and assignments relevant

to sustainability. Other limitations included a lack of resources (e.g., appropriate textbooks, lab space) as well as challenges associated with interdisciplinary collaborations. The potential for negative connotations attached to the term "sustainability," often emerging as a result of political differences, also posed a significant challenge for STEM faculty. Several faculty members noted their extraordinary efforts to avoid using the term altogether during class. Interestingly, faculty from the life sciences expressed little anxiety over the use of the term sustainability, while faculty in other disciplines expressed discomfort.

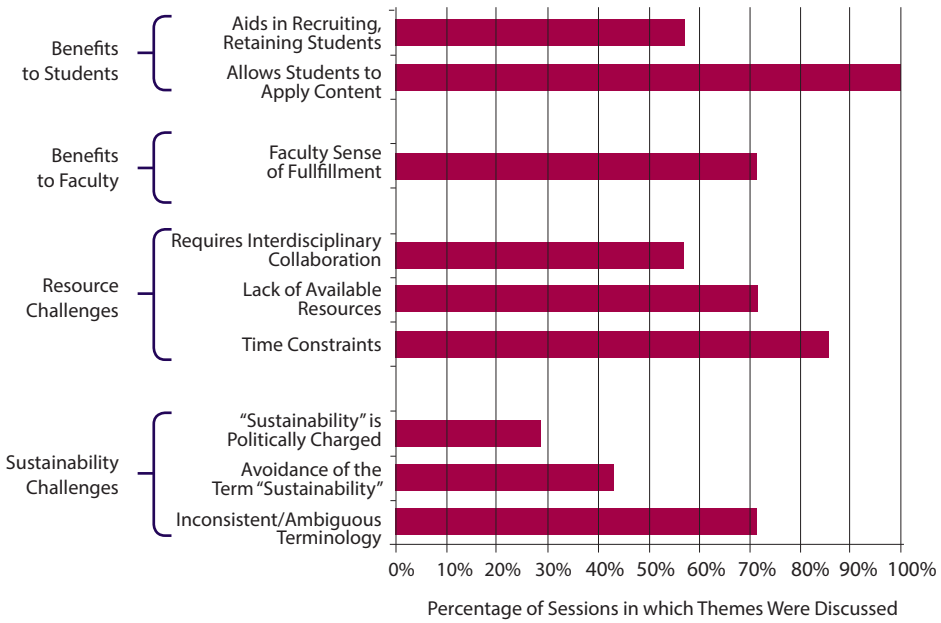
Discussion

Despite the challenges noted above, sustainability remains an effective mechanism for engaging students in learning that connects to real-world contexts and involves high-impact practices. Yet, although sustainability content is now offered in nearly a quarter of disciplinary programs in four-year US colleges and universities (Vincent, Bunn, and Stevens 2013), it is often located within specialized minors and certificate programs. As a result, sustainability education typically is not included in mainstream STEM courses, thus limiting its use as a context for high-impact practices.

Our listening sessions suggest several strategies for faculty to overcome the barriers associated with sustainability-focused education. First, if the term "sustainability" is an obstacle, faculty can employ other terms—by, for example, focusing on the goal of building "resilient communities," or focusing on "big questions" or "big ideas," as the Washington Center for Improving the Quality of Undergraduate Instruction does in its set of sustainability learning outcomes and habits of mind (n.d.). (Although instructors may opt to minimize their use of the term "sustainability," they nonetheless might want to help students explore controversies over the term's use in preparation for future professional work.) Second, faculty can use publicly available problem sets and case studies to mitigate time constraints. For example, the SISL initiative has compiled resources—currently available through the Science Education Resource Center of Carleton College (http://serc.carleton.edu/sisl/index.html)—that include a "beginner's toolkit" to assist faculty in infusing sustainability into existing curricula, teaching activities connected to a broad array of disciplines, and strategies for student empowerment. Third, faculty can use documented strategies to yield more effective interdisciplinary teaching, such as setting well-defined interdisciplinary learning goals and aligning those goals with assessment methods and with departmental and institutional priorities (see AAC&U 2011).

With these strategies, the benefits of incorporating sustainability into STEM coursework can outweigh the challenges. Rather than being an "add-on" or replacement for existing content, sustainability can provide a context through which to teach topics of central importance to a given discipline. We hope that the strategies suggested above will encourage more widespread integration of sustainability in the curriculum so the potential for improving student engagement and equitable representation in STEM can be realized.

FIGURE 1. Prevalence of Themes in SISL Listening Sessions



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SAVE THE DATES
Global Learning in College

On October 8 through 10, 2015, AAC&U's Network for Academic Renewal will host a conference on *Global Learning in College: Defining, Developing, and Assessing Institutional Roadmaps*.

The conference will help educators place real-world problem solving at the center of the undergraduate curriculum. It will provide opportunities to discuss how global learning can be grounded in an equity-minded conceptual framework and in inclusive institutional roadmaps that chart a new course for curricular change that is aligned with twenty-first-century goals for learning.

To learn more, visit http://www.aacu.org/meetings/global/15.

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Global Learning Resources

Global Learning: Defining, Designing, Demonstrating

A joint publication of NAFSA: Association of International Educators and the Association of American Colleges and Universities, *Global Learning: Defining, Designing, Demonstrating* explores the term "global learning" and the evolving ideas behind it. Author Kevin Hovland offers a multidimensional vision of global learning within the context of overlapping higher education change efforts, and describes maps that could emerge to direct global learning efforts. To download, visit http://www.aacu.org/globallearning/.

Global Learning: Reaching across Horizons

The spring 2014 issue of *Diversity & Democracy* focused on the topic "Global Learning: Reaching across Horizons." Focusing on the connections between local occurrences and global systems (financial, technological, natural, ideological), the issue explores the learning students need to grapple with global complexity while preparing for responsible action in the world. To download or purchase, visit www.aacu.org/diversitydemocracy/.

Coming Soon: Global Flourishing and Liberal Education

The summer 2015 issue of *Liberal Education* will define global learning and examine some of the key dimensions of global learning that are being implemented on campuses today. It will also make a case for inclusive excellence in global learning, since all students should have access to this set of high-impact practices and an opportunity to explore and attain global citizenship. The issue will be available at www.aacu.org/liberaleducation/.

AASCU's Global Challenges Project

Featured in the spring 2014 issue of *Diversity & Democracy,* the Global Challenges Project of the American Association of State Colleges and Universities (AASCU) "uses technology effectively and cost-efficiently to support faculty as they educate students to become globally competent and engaged citizens." To learn about this first course in AASCU's National Blended Course Consortium, visit http://www.aacu.org/diversitydemocracy/2014/spring/mills or www.AASCUGlobalChallenges.org.

New Civic Publication from AAC&U

In May 2015, AAC&U released *Civic Prompts: Making Civic Learning Routine across the Disciplines* by Caryn McTighe Musil. The publication offers a process, or set of prompts, through which faculty can begin to increase student learning by defining discipline-specific civic lenses that explore the public purposes, civic inquiries, and actions embedded in their fields. To download free of charge, visit www.aacu.org/civicprompts/.

New Publication from the Bonner Foundation

The Corella and Bertram F. Bonner Foundation launched *Engage* in Winter 2015. Published twice yearly, *Engage* "highlights and shares inspiring stories, proven models and best practices, and promising research and scholarship for how service, community engagement, community engaged learning, and public scholarship are transforming students, campuses, and communities." To download, visit http://www.bonner.org/engage-publication/.

Civic Learning and Democratic Engagement Calendar

The following calendar features events on civic learning sponsored by members of the Civic Learning and Democratic Engagement (CLDE) Action Network and others. For more information, please visit AAC&U's CLDE Calendar online at http://www.aacu.org/clde/calendar/.

MONTH	DATES	CLDE MEMBER EVENT	LOCATION
SEPTEMBER	21–23	Signature Work: Exploring the Future with Academic and Civic Engagement Leaders (Bonner Foundation)	Meadville, Pennsylvania
	27–30	Engagement Scholarship Consortium – 16th Annual Preconference and Conference	University Park, Pennsylvania
OCTOBER	Sept. 30–Oct. 3	Imagining America National Conference	Baltimore, Maryland
	8–10	AAC&U Global Learning in College Conference	Fort Lauderdale, Florida
	14–16	Eastern Region Campus Compact Conference	Newark, New Jersey
	22–15	2015 Association for Interdisciplinary Studies Conference: Impact for the Common Good?	North Andover, Massachusetts
	29–30	Anchor Institutions Task Force Annual Conference	New York, New York
NOVEMBER	12–15	National Women's Studies Association 2015: Precarity	Milwaukee, Wisconsin
	12–14	AAC&U Transforming STEM Education Conference	Seattle, Washington
	14	Annual Lynton Colloquium on the Scholarship of Engagement	Boston, Massachusetts
	16–18	International Association for Research on Service-Learning and Community Engagement 2015 Conference	Boston, Massachusetts

AAC&U and the Civic Learning and Democratic Engagement (CLDE) Action Network

As part of its commitment to preparing all students for civic, ethical, and social responsibility in US and global contexts, AAC&U has formed the Civic Learning and Democratic Engagement (CLDE) Action Network. The CLDE Action Network builds on the momentum generated by the 2012 White House release of the report *A Crucible Moment: College Learning and Democracy's Future.* Coordinated by Caryn McTighe Musil, AAC&U senior scholar and director of civic learning and democracy initiatives, the network includes thirteen leading civic learning organizations that are committed to making civic inquiry and engagement expected rather than elective for all college students. *Diversity & Democracy* regularly features research and exemplary practices developed and advanced by these partner organizations and their members:

- American Association of State Colleges and Universities
- Anchor Institutions Task Force
- Association of American Colleges and Universities
- The Bonner Foundation
- Bringing Theory to Practice
- Campus Compact
- Center for Information and Research on Civic Learning and Engagement
- The Democracy Commitment
- Imagining America
- The Interfaith Youth Core
- Kettering Foundation
- NASPA–Student Affairs Administrators in Higher Education
- New England Resource Center for Higher Education

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Upcoming AAC&U Meetings

MEETING	LOCATION	DATES
Network for Academic Renewal **Global Learning in College**	*Fort Lauderdale, Florida*	**OCTOBER 8–10, 2015**
Network for Academic Renewal **Crossing Boundaries: Transforming STEM Education**	*Seattle, Washington*	**NOVEMBER 12–14, 2015**
AAC&U 2016 Annual Meeting **How Higher Education Can Lead—On Equity, Inclusive Excellence, and Democratic Renewal**	*Washington, DC*	**JANUARY 20–23, 2016**

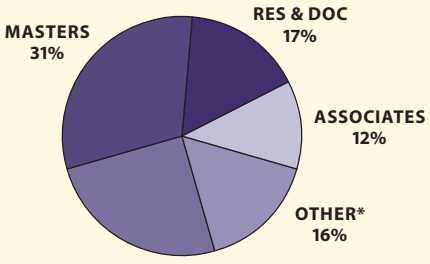
About *Diversity & Democracy*

Diversity & Democracy supports higher education faculty and leaders as they design and implement programs that advance civic learning and democratic engagement, global learning, and engagement with diversity to prepare students for socially responsible action in today's interdependent but unequal world. According to AAC&U's Statement on Liberal Learning, "By its nature…liberal learning is global and pluralistic. It embraces the diversity of ideas and experiences that characterize the social, natural, and intellectual world. To acknowledge such diversity in all its forms is both an intellectual commitment and a social responsibility, for nothing less will equip us to understand our world and to pursue fruitful lives." *Diversity & Democracy* features evidence, research, and exemplary practices to assist practitioners in creating learning opportunities that realize this vision. To access *Diversity & Democracy* online, visit www.aacu.org/diversitydemocracy/.

About AAC&U

AAC&U is the leading national association concerned with the quality, vitality, and public standing of undergraduate liberal education. Its members are committed to extending the advantages of a liberal education to all students, regardless of academic specialization or intended career. Founded in 1915, AAC&U now comprises more than 1,300 member institutions—including accredited public and private colleges, community colleges, and universities of every type and size. AAC&U functions as a catalyst and facilitator, forging links among presidents, administrators, and faculty members who are engaged in institutional and curricular planning. Information about AAC&U membership, programs, and publications can be found at www.aacu.org.

AAC&U Membership 2015



*Specialized schools, state systems and agencies, and international affiliates