Identity Matters

Artist Fidencio Martinez advocates for immigrants’ and workers’ human rights

GRADUATE EDUCATION at IOWA

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Amnon Kohen helps students develop the independent thinking necessary to succeed as scientists.

Kohen, a UI professor of chemistry in the College of Liberal Arts and Sciences, won the 2014-15 Graduate College Outstanding Faculty Mentor Award in Mathematics, Physical Sciences, and Engineering. Kohen was nominated for the award by his students and colleagues.

“I came to graduate school a shy, soft-spoken student,” says Tatiana Mishanina in her nomination letter on Kohen’s behalf. “I walked away a confident, inspired scientist unafraid of asking questions and taking risks in research and education.” Mishanina is now a postdoctoral fellow in biological chemistry at the University of Michigan.

Kohen trains his Ph.D. students to take their scientific curiosity to deeper levels, challenging them to find innovative solutions to their research questions.

The transformation from student to scientist occurs after his mentees take ownership of their projects.

“I have really strong expectations that my students will question the questions that I am asking,” Kohen says.

Since joining the UI faculty in 1999, Kohen has mentored 12 Ph.D. graduates and four Master’s graduates. All his doctoral students finish their degrees with between four and nine publications, mostly in top-tier journals in their field. His students also complete their UI studies having made at least 10 presentations at local, regional, national, and international conferences.

“I help students understand early on that if you haven’t communicated your research to the broader scientific community and the public, it didn’t happen,” Kohen says.

Kohen’s departmental contributions

In addition to mentoring graduate students, Kohen has provided valuable leadership as Director of Graduate Studies in Chemistry since 2006.

Kohen has spearheaded several major changes within his department. Those changes include revision of the department’s graduate student handbook, implementation of a desk rotation of incoming students, and changes to the graduate student proficiency requirements.

Sarah Larsen, professor and chair of chemistry, has observed Kohen help graduate students navigate issues such as conflicts with research advisors, changes in research groups, and personal difficulties that have affected their graduate studies.

“In each of these cases, Professor Kohen has handled the matter skillfully, confidentially, and with the best interests of the student as his top priority,” Larsen wrote in her nomination letter on Kohen’s behalf.

Kohen also serves students as director of both the Pre-doctoral Training Program in Biotechnology and the admission committee of the Carver College of Medicine’s Medical Scientist Training Program.

Third winner in chemistry

Kohen is the third chemistry professor to be honored with the Graduate College Outstanding Faculty Mentor Award. Vicki Grassian and James Gloer received the award in 2008 and 2010, respectively.

“I am not the exception in the Department of Chemistry. We have several very good mentors,” Kohen says. “It’s great to join the group of people who have received this award. It’s a great honor that goes back to my students.”

The 2014-15 awards recognize faculty in Mathematics, Physical Sciences, and Engineering and Social Sciences. In alternate years, the awards are presented to faculty in Humanities and Fine Arts and Biological and Life Sciences.
During his 35 years at the University of Iowa, Michael O’Hara has provided safe harbor for graduate students looking to alter their course in pursuit of academic excellence.

When a relationship with their mentor doesn’t work as planned, graduate students may wonder which way to turn. In those instances, O’Hara, a professor of psychology in the College of Liberal Arts and Sciences, advises students on the best direction to take.

Some students decide to continue their doctoral studies under O’Hara’s supervision. O’Hara has been the primary advisor for 23 Ph.D. graduates and currently advises seven doctoral candidates. Nearly one-third of these 30 graduate students began their academic careers working with another mentor.

Due to his remarkable record for advising students, O’Hara has been selected winner of the 2014-15 Graduate College Outstanding Faculty Mentor Award in Social Sciences. O’Hara was nominated for the award by his students and colleagues.

“I take great pride in getting our students through the program,” O’Hara says. “The fact that both my current and former students really supported this nomination in words and deeds was extremely meaningful to me.”

Changing a career trajectory

Early in her graduate career at Iowa, Crystal Schiller was making plans for an alternate career path. Schiller had to either switch mentors or drop out of the clinical psychology program.

Schiller decided to meet with O’Hara, then director of graduate studies in psychology, before leaving academia all together. On the spot, O’Hara agreed to be her new mentor. He also advocated on Schiller’s behalf to help resolve the conflict with her former advisor.

“His confidence in me, and his sense of responsibility for me as a student in the department, bolstered my confidence and changed my career trajectory,” Schiller wrote in her nomination letter on O’Hara’s behalf.

Schiller went from nearly dropping out of school to earning her Ph.D. in 2011. She is currently an assistant professor of psychiatry at the University of North Carolina-Chapel Hill.

Jennifer McCabe-Beane, one of O’Hara’s current Ph.D. candidates, heard similar stories while administering a student evaluation of the faculty advisors in the clinical psychology program.

“I have always felt like I’ve had Mike in my corner. I am truly prepared to achieve my career goals thanks to the guidance he has offered,” McCabe-Beane wrote in her nomination letter on O’Hara’s behalf.

The research passion

O’Hara’s approach to research supervision starts with helping a student determine where his/her passion lies. A student’s passion sometimes is quite different from O’Hara’s own interests.

O’Hara says the most striking example of that is former graduate student Gail Rose. Rose wrote a dissertation on graduate students’ concepts of the ideal mentor, a topic far removed from O’Hara’s research interests of postpartum and pregnancy depression.

Rose’s dissertation resulted in at least two publications and her mentoring scales are still used as part of faculty orientation at some institutions. Rose is currently an assistant professor of psychiatry at the University of Vermont.

“This example is emblematic of what I try to convey to my graduate students—’I am here for your success. You are not here for my success.’”

—Michael O’Hara
Chris McFadin prepared carefully for a career outside the academy.

As a doctoral student in history at the University of Iowa, McFadin enrolled in courses outside the traditional history curriculum. He took classes in areas such as software programming and database management. He pursued an non-academic (non-ac) career path, choosing to take advantage of Iowa’s diverse course offerings. These courses allowed McFadin to hone his skill set and become more competitive in the job market.

McFadin now works as a data analyst for the United Way of Greater Milwaukee and Waukesha County. He uses the skills he developed at the UI as he manages data to help the agency maximize its resources to aid those in need.

The agency’s work changes lives and improves the community in the greater Milwaukee area by mobilizing people and resources to promote positive changes in education, income, and health. McFadin manages the flow of information about money that comes into United Way from fundraisers, tracking each dollar all the way through from donor to positive impact in the community.

Tracking an academic journey

McFadin’s dissertation studies focused on the economic history of the French Reformed Church, predominantly in Europe.

Ray Mentzer, professor in religious studies and McFadin’s research advisor, says, “Chris chose a wonderfully original topic—financing the Reformation in early modern France. He methodically set about acquiring the paleographic skills to read the archaic manuscript handwriting and the business acumen required to interpret the financial accounts.”

As his research progressed, McFadin examined the church’s approach to asking for donated funds. He also studied the records to find out how impoverished citizens were required to behave in order to qualify for assistance from the church. What he discovered points to the global history of capitalism and its rise in social systems today.

Mentzer commends McFadin’s dissertation efforts. “The result was not only a brilliant thesis but a superb preparation for a career in non-profits such as United Way.”

McFadin took a GIS-geospatial programming software class, which UI geologists tailored for tech-savvy humanities students interested in deepening their skills. According to McFadin, the course was created “with the idea in mind that students of history need to do something other than just read books.” McFadin also took courses in data management and computer coding.
Broadening his career path

McFadin chose Iowa because he felt that it offered the right balance between an advisor to give him direction and the freedom to design his own project. A key deciding factor was Mentzer’s support for McFadin’s choice to pursue a career outside the academy.

Having decided to define his own career path, McFadin sought career advice from the office of UI Grad Success (UIGS). UIGS, part of the Graduate College, assists students with career advice, external funding, resume writing, networking, and other important professional skills necessary to pursue the next step in their careers.

McFadin attended a UIGS workshop on building a professional online presence when searching for a non-ac job. He also attended a round table session with former students who had successfully obtained positions outside the academy.

“I have nothing but positive things to say about the advice I received from the UIGS office and the value of graduate school,” says McFadin. “There is no doubt the UIGS office added value to my graduate education and gave me some tools to succeed on the job market.”

Advice for the journey

McFadin offers this advice to others considering a career outside the academy: the non-academic job market works much more quickly than the academic job market. He applied for his current position, landed it, and started two weeks later.

In addition, McFadin says graduate students on the job market should pay attention to quality instead of quantity when applying for jobs. Apply to fewer positions and choose those that match your skill set. Such a strategy allows job seekers to take the time to write the strongest application possible. This, says McFadin, could make all the difference.
Stacks of maps wait on the shelves in Fidencio Martinez’ art studio.

For Martinez, maps are a powerful symbol of personal journey and identity—a sense of belonging to a place.

As a child of only eight, Martinez was uprooted from his home in Oaxaca, Mexico. Fleeing economic collapse and poverty, he traveled with his brothers and mother across the border to the United States, eventually settling in Wilmington, North Carolina.

Martinez, an MFA candidate in the UI’s School of Art and Art History, remembers little from that time, relying on his mother’s account of the family’s immigration. “I sort of just blocked it all out. You’re never told, ‘We are going to go on this journey that could potentially kill us.’ You’re just told that we’re going to do it,” he says.

Recently, Martinez has begun to piece together his memories with those of his family members. He asked his mother to recount their immigration. “I asked her, ‘What was it like crossing? What was
the scariest point? Where there times you though we weren’t going to make it? She has her own stories, and I am just shocked that she protected us so well.”

As he learns more about his history, Martinez creates prints, paintings, and installations with fragments of map imagery. He dismantles the maps by hand, cutting away the land and keeping the roadways and rivers. The results are fragile, lace-like structures, which he uses in layers to create images of immigration: people, fences, water, and land.

In addition to maps, Martinez uses newspaper clippings, paper, and painting surfaces to refer to the crafts and customs he learned as a toddler in Oaxaca—traditions used to celebrate festivals and mourn the dead. For him, these techniques are “a way to reconnect with a time and place no longer present.”

**Identity beyond the portrait**

Seeking more meaningful ways to express his identity as an artist as an immigrant, Martinez has used these techniques to break free of traditional portraiture. “In undergrad, I loved being able to depict a person,” he says. Pointing to a work he’s produced since coming to Iowa (see image to the right), Martinez describes his process. “In this one, I spent a few days literally cutting up a portrait and then breaking it, letting the drips play into the portrait.”

The painting features Martinez as a child, playing in the small river near his home. The lines formed of dripping paint make the work come alive with movement, suggesting the arteries of highways and the paths of immigration.

“I was struggling with identity,” says Martinez. “People would ask, ‘What’s this painting? What’s it about?’ It’s about the struggle of being smuggled across the border at a young age and not knowing where you belong. My body is from Mexico, but my mind—who I am—is very much a product of the U.S.”

From there, Martinez began to work with installations, “literally letting go of the canvas as a structure. I wanted to talk about bigger issues such as immigration and citizenship, or lack of, because at the time the rhetoric was very much anti-immigrant. Alabama, Georgia, and Arizona passed laws that persecuted anyone who looked brown.”
Becoming an artist

Although Martinez searches for identity as an immigrant, his calling as an artist has been intact since he was young.

“I didn’t choose art, it chose me.”

He feels fortunate to have had teachers who encouraged him along the way. “When I got here, I didn’t know any English. My second grade teacher bought me my first coloring book so that I would have something to do while I was learning the language.”

During high school, Martinez won many art contests. His guidance counselor noticed and suggested Martinez apply to various colleges. “I told her I didn’t have any money, I was undocumented, thank you, but I am not going to go to college. She didn’t say anything, so I left her office.”

Three hours later, the guidance counselor called him back to her office with information about a college recruitment event for artists.

Martinez attended the event and received admissions offers from seven colleges. He chose the Memphis College of Art.

“Before I knew it, my dad was dropping me off in Memphis, and I just went wild with the museums and the galleries.”

Soon before completing his Bachelor’s of Fine Arts, Martinez faced another decision. “I was going to have a degree but no way of working using my degree,” he says.

That same summer, he applied for legal status through the immigration policy Deferred Action for Childhood Arrivals (DACA). On July 27, Martinez received word that his application had been approved. DACA grantees receive a Social Security number and are eligible to apply for a driver’s license.

Since then, Martinez landed a spot in the graduate program in drawing and painting at the University of Iowa. He has studied with a number of faculty, including Isabel Barbuzza, associate professor of dimensional practice; Laurel Farrin, associate professor of painting and drawing; Anita Jung, professor of printmaking; and Susan Chrysler White, professor of painting and drawing.

“Anita’s been great; my printmaking has really improved. Susan, Laurel, and Isabel are great committee members who have all pushed me, because I came with nothing but portraits of people and now it’s installations, 3D, sculpture, lights. This is something that would have taken me ten years if I weren’t in this program. I’ve really used my time here.”

The road ahead

Martinez will complete his MFA in December 2015. He plans to move to L.A. or New York, where he will continue making and exhibiting his art.

He also plans to search for a position in a non-profit. “I want to continue working for a human rights center or a center that helps people with ESL classes or translating documents.”

For Martinez, it matters to have an identity as someone who helps others. “When I was thinking about going to college, I went to those centers asking for help, and those people made a difference. I want to do my part.”

Look for social justice events in 2015-16 during the UI Theme Semester Just Living, organized by the Office of Outreach & Engagement http://justliving.uiowa.edu
“I believe in their cause: justice; respect for the work you do, regardless of what it is; dignity and fair treatment for everyone; inclusion into this community for anyone.”

—Fidencio Martinez

Human rights work
In May 2015, Martinez won the Philip G. Hubbard Human Rights Award from the University of Iowa.

Martinez has been involved with the Center for Worker Justice since fall of 2013, helping workers and former workers collect wages that have been withheld due to illegal practices by a number of local businesses.

“I became involved with the Center for Worker Justice after meeting Misty Rebik, the director of the center,” says Martinez. “I believe in their cause: justice; respect for the work you do, regardless of what it is; dignity and fair treatment for everyone; inclusion into this community for anyone.”

This past year, Martinez helped undocumented workers who had been fired after they complained about their wages being held and, at times, stolen by management, and he worked with the center on a larger case, helping a young working mother who was owed back pay.

In December 2014, Martinez accepted a nomination to serve on the Board of Directors for the Center for Worker Justice. He has also been active in a large campaign to make community IDs available for people living in Iowa City and neighboring communities. His work includes reaching out to elected officials in the area—most recently the mayor of North Liberty.

Martinez also created, with two others, a project called Invisible Faces: Identity Portraits. This project, broken into three parts, photography, printmaking, and sculpture/installations, provides participants an opportunity to reflect on immigration, talk about issues that matter, and learn about art.
Imagine a place where computers, music, and dance come together. Jason Palamara is a composer who works with these elements to create an interesting creative landscape.

A Ph.D. candidate in music composition, Palamara came to the University of Iowa because of the camaraderie and enthusiasm. “The performers here love to play new music, and we play each other’s pieces,” he says. This supportive environment has inspired Palamara to compose numerous pieces in his time at Iowa, including *None Above Me*, for the JACK Quartet, and *I’ve Tried Running*, a collaborative dance and music piece that has been performed internationally.

Palamara is a founding member of the Laptop Orchestra at the University of Iowa (LOUi), a collaborative group that explores the intersection of music, technology, and performance. His custom-made Glove/Dancer system, which interfaces with software he wrote, allows dancers to manipulate sound in real time during a dance performance. His custom software and glove were used in the dance piece “Dysphonia,” a collaboration between Palamara and UI faculty choreographer Charlotte Adams.

*Where sound, movement, computers, and community involvement intersect*

*Elizabeth Boehm, contributing writer*
unique program that fuses musical performance with computer programming. By networking both the machines and the people—where both are making real-time decisions—LOUi allows people to explore different ways to make music socially, culminating in a collaborative technique.

In 2014, Palamara earned a competitive University of Iowa Graduate College Summer Dissertation Fellowship for his work with the LOUi program. He used his fellowship to take a computer coding class to expand his repertoire and increase the capability of the LOUi platform. According to David Gompper, professor of music composition and Palamara’s doctoral thesis advisor, “Jason has been a core member of the ensemble and has not only led the group in programming but with powerful ideas that have been collaborative in nature.” Palamara has devoted much effort to promoting this new program, organizing concerts at the Obermann Center for Advanced Studies Informatics Symposium and the University of Iowa’s Passport Project.

In addition to his work in the School of Music, Palamara has served as the in-house composer for the Department of Dance at the University of Iowa, where he specializes in electroacoustic, collaborative, and improvisational composition. He produces original pieces, often in collaboration with choreographers, to accompany dancers ranging from undergraduates to professors and guest artists. Palamara works closely with performers to ensure a seamless blend of music and choreography. “As a composer writing for dance, you have to be malleable, because the dance will evolve over time, and the music needs to evolve with it,” he says. Palamara also teaches workshops for dance students on various sound-editing programs. Students who take his workshop gain the skills they need to showcase their choreographic work—a necessary component of a successful career in dance.

As part of his dissertation, Jason developed software to control an electronic glove that gives a dancer wireless control over sound from the laptop orchestra. The result is a collaborative work with Charlotte Adams, associate professor of dance at the UI. *Dysphonia*—for eight dancers, violin, saxophone, and laptop orchestra—integrates Palamara’s glove in both choreography and music.

Palamara plans to pursue a position teaching composition at the collegiate level. He hopes to manage his own laptop orchestra, giving students hands-on experience performing and composing with this technology.

See *Dysphonia* in performance [tiny.cc/Adams-Palamara](tiny.cc/Adams-Palamara)

**Songwriters’ Workshop**

Along Highway 965 between Coralville and North Liberty is the Iowa Medical Classification Center that houses Oakdale Prison. This is the home of the Oakdale Prison Community Choir, founded in 2009 by Mary Cohen, associate professor of music education. “Twenty-five women and men who are not incarcerated join me each Tuesday in the prison testing room to rehearse with the other half of the choir: 30 men (inside singers) who are serving time,” says Cohen.

Inside singers also have the opportunity to participate in the Oakdale Prison Choir Songwriter’s Workshop—a creative outlet and life-changing experience.

Palamara, who is an outside singer in the choir, serves as instructor for the workshop. For the past three and a half years, he has donated his time and talents teaching lessons, composing music, and conducting sessions during which inside singers share their work and provide positive and constructive feedback to each other.

Palamara taps his passion for teaching to help these men learn about music, an endeavor that creates a sense of community, boosts their self-confidence, and provides an opportunity to learn a skill they can carry with them once they leave the facility.
Faculty and graduate student collaboration

Choreographer Charlotte Adams, associate professor of dance at the University of Iowa, emphasizes the collaborative process of choreographing “Dysphonia.” “The initial impetus for the piece was provided by Jason Palamara. I let him take the lead. I wanted him to feel free to make the music in a way that would be important for his dissertation,” says Adams in an interview with the Daily Iowan.

“Ultimately,” she says, “the piece became about artificial intelligence and this ominous overview of how humans tend to just follow trends [such as artificial intelligence], which could lead us down a dangerous path if we don’t pay attention.”

The photos featured here are taken from video footage of a performance of “Dysphonia” given as part of the Department of Dance Faculty/Graduate concert on February 12, 2015 in Space Place Theater at the University of Iowa.

“

The initial impetus for the piece was provided by Jason Palamara. I let him take the lead. I wanted him to feel free to make the music in a way that would be important for his dissertation.

―Charlotte Adams

Dance Performers: Tori Lawrence, Emily McElwain, Crystal Gurrola, Erin Corcoran, Justin Gorgone, Anthony Pucci, Eleanor Goudie-Averill, Anna Krupp

Musicians: Jason Palamara (violin/laptops), Justin Comer (saxophone/laptops)
Charlotte Adams’ choreography has been described as “wickedly whimsical” and “slyly humorous” (The Arizona Daily Star), “arresting” (The New York Times), “gorgeous” and “delicious” (The Tucson Weekly), describing a style that combines Adams’ signature wit and athleticism with an eye for the poetry of human foibles.

Her choreography has been performed by companies and college dance programs throughout the United States and internationally in two tours to the Caribbean, South East Asia, and Turkey, Greece, Italy, and Spain.

In 2001 CHARLOTTE ADAMS and DANCERS had its premiere performance at New York’s Joyce SoHo and was selected for return seasons in 2003, with The Pathology of Love (whose title piece Jack Anderson of The New York Times called “brash”) and more recently in 2006 with a concert of new work entitled Blind Dogs Sing of Love.

Other choreographic honors include the selection of Imagining Ketchikan for Joyce SoHo Presents 2000, acceptance to Dance Theater Workshop’s fall 2006 Bessie Schonberg Laboratory in Composition, and Katie Feels Guilty About Library Fines for The White Wave D.U.M.B.O. Festival 2009. In 2000, The Poetry of Physics was selected for the National American College Dance Festival, and The Dichotomy of Desire and Alpaca Dreams for the central region American College Dance Festival 2002 and 2008 respectively.

Adams began her choreographic career in Tucson, Arizona, as a founding member of Tenth Street Danceworks, a contemporary repertory company. She received numerous grants from Arizona granting agencies for choreography (for collaborative projects with such diverse groups as the Tucson Police Department SWAT Team, rock group Los Lasers, and the Gospel Music Workshop of America) and was awarded the prestigious $25,000 Arizona Arts Award in 1993.

Under her direction the company performed throughout Arizona and New Mexico and in tours to Nebraska, North Carolina, Fort Worth, Texas and numerous cities in Japan, the Philippines, South Korea, Australia and southern France including Montpellier’s Festival Off and the Odyssud Theatre in Blagnac.

Adams joined the Department of Dance at the University of Iowa in 1998 and teaches dance kinesiology, modern technique, choreography, yoga, and other somatic practices.

Since 1998, the College of Liberal Arts and Sciences at Iowa has awarded her more than $60,000 for collaborative performance projects. Of particular note are Rompe! Dance and Music of the Americas with flutist Tadeu Coelho and choreographer Aramando Duarte; The Poetry of Physics, a concert of original work by Adams; Deception with composer/percussionist Daniel Moore, set designer Margaret Wenk and lighting designer Laurel Shoemaker; and most recently Virtually Yours, a collaboration with choreographer Jennifer Kayle and composer/videographer Carlos Cuellar performed in Santiago, Dominican Republic, as well as at Highways Performance Space in Los Angeles in June 2010. —Reprinted from dance.uiowa.edu/charlotte-adams-0
Jessica Hall wants specific answers to these and other key questions about language acquisition.

Far from a simple process, language learning involves behavioral, cognitive, environmental, and neural factors. Hall, a doctoral student in Communication Sciences & Disorders (CSD), studies these factors to understand why some children are language impaired and, eventually, what could be done to help them.

Hall studies children with specific language impairment (SLI). Children with SLI exhibit language skills below their intelligence level and do not acquire their first language as other children do. SLI children may miss visual, gestural, rhythmic, auditory, and other cues. As a result, this population generally uses fewer words and fewer complex sentences than their peers. Screen tests can help identify children with SLI. But once identified, teachers and clinicians face long processes to find the right combination of therapies and interventions for each child.

This is where Hall’s research can help.

Hall tests SLI children to learn more about the underlying causes. Her current research investigates children’s capacity to predict correctly words that come next in a sentence. The method, known as artificial grammar learning, taps the brain’s ability to learn based on previous experiences.

In the lab, Hall uses an invented language to discern whether a child can recognize word patterns and whether they can predict word order correctly based on their experience. Hall then examines whether or not the children show evidence of similar skills in English. She is conducting this research with her dissertation advisor, Amanda Owen Van Horne, associate professor of speech pathology and audiology and in collaboration with Thomas Farmer, assistant professor of psychology.

Prior to coming to the UI, Hall was a high school English teacher in Ocala, Florida. The Ocala area, a major world thoroughbred horse center, attracts a diverse population. As a result, many of Hall’s students were non-native English speakers. On her own, Hall worked to obtain optional certification in English as a Second Language (ESL) so that she could retain all of her students in her classroom, regardless of their English skills.

Hall’s ESL work prompted her to pursue a master’s degree in linguistics at the University of Iowa, where she began to develop an interest in a wide range of views about language acquisition. While earning her M.S., Hall volunteered in the department of Communication Sciences and Disorders (CSD) in order to gain more exposure to research focused on the behavioral, cognitive, and neural aspects of language learning.

As a doctoral student in CSD, Hall designs her own curriculum, allowing her to gain the expertise she needs for her research. She has used this freedom to expand her knowledge of other related

Making the case for basic research

Basic research lays the foundation for major advances that improve human life. Jessica Hall is quick to point out the benefits of basic research in her field of study. “There is always an opportunity to use what we find doing basic research to help us develop more effective clinical methods,” she says.

A National Science Foundation report on language learning indicates that while current research points to solid working theories, our understanding of language acquisition remains incomplete. “We still don’t understand how a child learns its first language, why some children have language disorders or how children and adults learn a second language,” says NSF program officer Joan Maling.

Using basic research to unravel the process of language acquisition promises not only to help scientists answer these questions, but to explain fundamental features of learning and the human brain.

The University of Iowa DeLTA Center

The DeLTA Center is an interdisciplinary research community transforming conventional conceptions of development and learning by promoting reciprocal interactions between basic and applied researchers, by training the next generation of collaborative scientists, and by actively engaging with community partners.

DeLTA Center members recognize that the processes of development and learning are fundamentally complex. These processes live at multiple levels—from neurons to neighborhoods—with reciprocal interactions at all levels.

And these processes play out over multiple time scales, from the millisecond unfolding of action potentials in the brain to the time scale of behavior over days, months, and years.

By embracing the complexity of the developmental system, the DeLTA Center contributes to a broader intellectual movement that advances a fresh vision of how science should approach the study of “change.”

Visit the DeLTA Center online deltacenter.uiowa.edu

Research that is done in a vacuum causes you to miss whole dimensions to a problem or process that are compelling and important.

—Jessica Hall

Hall has taken numerous classes from DeLTA Center members to explore how people learn, including a course on dynamic systems theory. Hall’s holistic approach to language learning makes her a notable scholar, according to Van Horne. “Jessica’s ability to combine linguistics and psychology techniques with a focus on clinical applications is a real strength of hers,” says Van Horne.

In the future, Jessica intends to pursue a postdoctoral position to explore the neural and behavioral aspects of language acquisition in individuals with SLI. After this, she plans to establish her own research program at a university with a resource like the DeLTA Center that encourages collaboration across disciplines and community involvement. “Research that is done in a vacuum causes you to miss whole dimensions to a problem or process that are compelling and important,” says Hall.
Since 2009, more than 800 graduate and undergraduate students at the University of Iowa have participated in hands-on sustainability projects as part of the university’s Iowa Initiative for Sustainable Communities (IISC).

What began in the Field Problems graduate course taught by Charles Connerly, professor and director of the university’s School of Urban and Regional Planning, is now a campus-wide initiative. In the 2014–15 academic year, IISC counted 267 students, 11 academic departments, and 50 community partners working on economic, environmental, and social sustainability projects in rural and urban communities across the state.

Among the projects that IISC has completed in the past five years are a market study for what is now a successful kayak park in Charles City and a plan for the city of Muscatine that integrates flood control with downtown redevelopment — projects that, due to the cities’ strapped budgets and limited capacities, might not otherwise have been realized.

Applying academic strengths to build better communities

The University of Iowa, home to 31,000 students, has a strong research profile. Through IISC, the university is harnessing that research prowess to meet the needs of Iowa communities. Of the state’s 960 cities and towns, only 11 have populations of 50,000 or more. Communities under 15,000 tend to lack planning departments, and the cost of hiring outside consultants can be prohibitive. Nick Benson, IISC’s director, points out that even large cities with greater capacities are facing tight budgets in the current fiscal climate.

The University of Iowa’s other strengths are also a good match for the state’s sustainability challenges. Flooding has been a problem throughout Iowa in recent years, particularly the historic floods in Cedar Rapids, Iowa City, and other cities in 2008. The university’s IIHR-Hydroscience & Engineering is well known for its research on flooding, hydraulics, and water management, says Benson. Flooding is of such concern to local governments that flood control and mitigation are often incorporated into projects that do not specifically focus on flooding, Benson says. For example, redevelopment plans for Wellness Park in Washington included stormwater runoff and flood control facilities, and a plan for downtown redevelopment in Muscatine included flood controls that are slated to be installed in 2016.

A concentrated impact

During each of its first two years, IISC worked on projects in a handful of cities. In 2011, Connerly decided to focus IISC’s efforts on a single city in order to increase its impact. So for 4 semesters, 70 students worked in Dubuque, a city that for a decade had devoted resources to transforming itself into a sustainable city.

The students completed five wide-ranging projects that provided tools and baseline data that the city has since applied to additional projects. For instance, one class teamed with Cori Burbach, the city’s sustainability coordinator, who works in an office of one. The students developed sustainability metrics based on a review of more than 1,000 sources and indicators in 40 other communities, which Burbach says she would not have had the time to undertake on her own. The project won a 2013 Student Project Award from the American Institute of Certified Planners, and Burbach has used the metrics to create the city’s first report card for the STAR Communities program.

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Other students researched and analyzed data on housing, poverty, inequality, and city services with the Community Foundation of Greater Dubuque. The students’ Portrait of Poverty Study helped inspire Inclusive Dubuque, a network of civic, governmental, faith-based, private, and nonprofit groups committed to making Dubuque more inclusive and equitable. The foundation is also
using the data to prepare an equity profile, and the city has used the data for housing initiatives, neighborhood programs, and other projects.

Similarly, another student project on local food initiatives resulted in recommendations to food-producers seeking to sell their food locally, suggestions to nearby colleges interested in offering local food on campus, and marketing materials to generate awareness about the availability of locally grown food.

**From Field Problems to a campus-wide program**

A $91,000 grant from the provost’s office in 2012 enabled IISC to expand its reach beyond the School of Urban and Regional Planning to nine other academic departments, including art history, communications, engineering, law, and public health. Cities approached the campus with potential projects, for which Benson and colleagues sought faculty who might integrate them into their classes.

In 2014, IISC formalized the community selection process by issuing a request for proposals to identify cities and sustainability projects that would extend over two years.

Of eight cities that expressed interest, six submitted proposals and three were selected: Sioux City, Iowa City, and Decorah/Winneshiek County. In addition, the participating cities are now paying for IISC’s assistance, which will supplement continued funding from the provost’s office.

**University and community benefits**

Sustainability and community engagement are two goals that have recently become top priorities among the university’s leadership. The university’s strategic plan calls for “Better Futures for Iowans” and focuses on community engagement. IISC’s activities are major contributions to achieving those goals.

IISC offers university faculty fresh alternatives for teaching. “It provides them with a new excitement and a sense of doing something different with their courses,” Benson says. IISC’s projects have also provided opportunities for faculty members to meet their teaching goals. Some professors “believe students should have a really good quality, professional capstone experience,” Connerly says. “The best way to do this is in the real world.”

Students gain new experiences, such as working with local property owners affected by municipal policies and projects. During the Dubuque projects, for example, students ran numerous public meetings to get residents’ opinions about alternative scenarios for developing the city’s South Port waterfront.

Laura Carstens, the city’s planning services manager, recalls, “The students learned to think about things from someone else’s perspective,” and those perspectives helped shape the recommendations of the final report.

The students’ work benefits the community, says Eric Dregne, vice president of strategic initiatives at the Community Foundation of Greater Dubuque. In Dubuque, for instance, the students’ Portrait of Poverty Study addressed poverty and inequality across the city. Dubuque has since used the study’s baseline data to inform housing initiatives and neighborhood programs.

More generally, these multi-year student efforts unite diverse stakeholders from across the community. Burbach notes that such concentrated activities “create a chance for synergy” that can motivate the community to take decisive action on major projects.

Editor’s note: This is a condensed version of a case study from the U.S. Department of Housing and Urban Development, published June 2015 online at www.huduser.org.

According to the site, “HUD USER publishes a series of case studies based on federal, state and local strategies that increase affordable housing opportunities, apply sustainable features and practices, and increase access to public transportation. The projects featured in these reports have demonstrated innovation through a multitude of partnerships and initiatives. Each report outlines a project’s objectives and the development strategies used to achieve them.”

Read the entire HUD case study tiny.cc/HUD-Ulowa-IISC
Noaquia Callahan
2015 Obermann Center Scholar
Candidate for the PhD in History

“The Graduate Student Success Staff taught me how to breakdown and tailor my proposals according to each grant funders’ mission, grant description, and requirements. Developing this skill is key to success in the world of grant writing.”

Callahan won 10 competitive fellowships and grants for the 2015-2016 academic year, including a doctoral fellowship in African American History, German Historical Institute in Washington D.C. and a Mellon-Moorland Travel to Collections Grant, Moorland-Springarn Research Center, Howard University in Washington D.C.

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