

PENN GSE

Spring 2018

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Twenty-First-Century
Learning

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PENN GSE

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On the cover: Penn GSE's building expansion will include a two-story addition with an innovation laboratory (pictured center) in the Social Science Quadrangle. **Below:** A glass pavilion will be added to the east side of the 3700 Walnut Street building, providing a new lobby on Walnut Street and four floors of student lounges and group study rooms. Renderings courtesy of Atkin Olshin Schade Architects.



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FACULTY BOOKSHELF



Photo by Goldenberg Photography

Letter from the Dean

Dear Alumni and Friends,

It is a time of great momentum at Penn GSE. In April, we launched *Extraordinary Impact: The Campaign for Penn GSE*, a fundraising effort that is part of the University-wide *Power of Penn Campaign*. At our launch celebration for

alumni, board members, and friends, the remarks of our distinguished speakers highlighted both the significance of our work in improving lives through education and the urgency of multiplying our extraordinary impact.

Lifelong educator Dr. Jill Biden spoke from the remarkable vantage point of one who served simultaneously as second lady of the United States and as an English professor at a community college. Still active in her role as a professor, she regards teaching as a calling. Reflecting on her work teaching veterans, single mothers, refugees, and others seeking to improve their lives through learning, she offered words of inspiration that capture the essence of what educators do: “We get to help people become the best versions of themselves. We get to help them make their dreams a reality.”

Penn President Amy Gutmann made it clear that we can never underestimate the importance or potential of the Penn GSE community. “I defy anybody to show me a time in history when education has been more important than it is today, in people’s lives and the life and prosperity of our society,” Dr. Gutmann said. “The demands of the twenty-first century mean that educators working at every level have to be ready to innovate. Between its world-class faculty and array of partnerships at the local, national, and international levels, Penn GSE is uniquely positioned to pioneer these new models of learning.”

Bestselling author and entrepreneur Wes Moore, CEO of the Robin Hood Foundation, spoke about the themes of access and opportunity that shape his book *The Other Wes Moore: One Name, Two Fates*. In the book, he tells his own life story alongside the tragic trajectory of another man who shares his name and hometown of Baltimore but lacked access to similar resources and family support. Moore spoke at the event of the life-changing capacity of education. “The power of Penn GSE is not just who will walk across your graduation stage,” he said. “Its power is in the human souls they will touch, whose lives they will nourish, which doors they will open, which narratives they will change.”

His words, like those of all of our speakers, convey the immeasurable value of education and the weight of the challenges we must address. I am energized and inspired by all that we can accomplish together. This spring has marked the launch not only of the campaign, but also of multiple initiatives that will amplify our impact. Our new Global Engagement Office led by Senior Fellow Alan Ruby will enhance the global aspects and reach of our work. Two new centers described on page 5 of this issue, Catalyst and the Collaboratory for Teacher Education, will build upon our legacy of innovation and strengthen our work producing the educators and leaders of the future.

Throughout the pages ahead you will see stories of the campaign and the extraordinary school that it supports. In our fall issue we will share coverage of the on-campus campaign launch event held in May during Alumni Weekend.

I hope you are as proud as I am of Penn GSE’s dedication to producing transformational educators and leaders. In the words of Dr. Biden, this work is fundamentally “about becoming—becoming teachers, professors, researchers, politicians, and entrepreneurs of tomorrow—becoming the education leaders who will decide our future and spark positive change around the world.” At this time of new beginnings, I look forward to working with our entire community—students, faculty, staff, partners, friends, and alumni—as Penn GSE becomes the school that will shape education in the twenty-first century.

Pam Grossman
Dean, Penn Graduate School of Education
George and Diane Weiss Professor of Education

BOOKSHELF SPOTLIGHT

Learning as Development: Rethinking International Education in a Changing World

Daniel A. Wagner

Published 2018 by Routledge

This book examines education as a touchstone and target for those seeking to effect global change. Tracing the history and envisioning the future of international development work, Penn GSE Professor Dan Wagner addresses the impact of educational quality on income, social mobility, health, and well-being and lays out a

new learning agenda for policymakers, researchers, and practitioners faced with today’s unprecedented environmental and geopolitical pressures. At Penn, Dr. Wagner is UNESCO Chair in Learning and Literacy, director of the International Literacy Institute, and director of GSE’s International Educational Development Program.



Daniel A. Wagner



Taking it to the Streets: The Role of Scholarship in Advocacy and Advocacy in Scholarship

Edited by **Laura W. Perna**

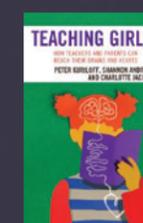
Published March 2018
by Johns Hopkins University Press



Educational Challenges at Minority Serving Institutions

Edited by **Marybeth Gasman**, Andrés Castro Samayoa, GR’17, William Casey Boland, GED’14, and Paola “Lola” Esmieu, GED’13

Published December 2017
by Routledge

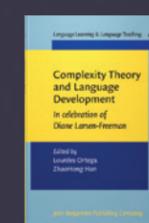


Teaching Girls: How Teachers and Parents Can Reach Their Brains and Hearts

Peter Kuriloff, Shannon Andrus, GRD’13, and Charlotte Jacobs, GR’17

Published December 2017
by Rowman & Littlefield

Learn more about this book in the “Recess” section on p. 31.



*Complexity Theory and Language Development: In Celebration of Diane Larsen-Freeman**

Edited by Lourdes Ortega and ZhaoHong Han

Published November 2017
by John Benjamins Publishing Company

*Visiting faculty member

Names in **bold** are members of the Penn GSE faculty.

FACULTY AWARDS & HONORS

Partnering with Immigrant Communities: Action Through Literacy, a book coauthored by **H. Gerald Campano** (1), was awarded the 2017 Edward B. Fry Award by the Literacy Research Association. **Campano**, **Amy Stornaiuolo** (2), and **Ebony Elizabeth Thomas** (3) have been named coeditors of the journal *Research in the Teaching of English*. **Nelson Flores** (4) has been appointed to editorial boards of the journals *Reading Research Quarterly*, *International Journal of the Sociology of Language*, and the *Annual Review of Applied Linguistics*. **Sharon Wolf** (5) will research early childhood development, early childhood education, and the well-being of families in West Africa as one of eleven global fellows selected for the 2018-2020 Jacobs Foundation Research Fellowship Program.



Faculty headshots on pages 3 to 5 courtesy Goldenberg Photography and Candace diCarlo

News Briefs

Penn GSE Ranked #4 Nationally



Penn GSE has been ranked #4 in the 2019 *U.S. News & World Report* rankings for graduate schools of education. The ranking marks the seventh consecutive year Penn GSE has been in the top 10. For the tenth straight year, Penn GSE's leadership in the world of education policy has been reflected with a top-10 position in the specialty rankings. In their categories, the Education Policy division ranked #6, and the Higher Education division ranked #9. Penn GSE also debuted in the Administration/Supervision specialty rankings. "It's an honor to be ranked so highly by *U.S. News & World Report*," said Dean

Pam Grossman. "At Penn GSE, our students and faculty are dedicated to the idea that education can create opportunity in communities across the country and around the globe. In our second century, we continue to be one of the most innovative schools of education in the country. What hasn't changed is our commitment to preparing the next generation of transformational teachers, leaders, and scholars."

President Gutmann, Dr. Jill Biden, and CEO Wes Moore Help Launch Extraordinary Impact Campaign

On April 18, Penn President Amy Gutmann, former second lady of the United States Dr. Jill Biden, and bestselling author and social entrepreneur Wes Moore helped Penn GSE launch the *Extraordinary Impact Campaign*. The three spoke along with Penn GSE Dean Pam Grossman to an audience of alumni and friends at an event held at the Barnes Foundation. All shared their perspectives on the power of education and the role Penn GSE can play in the future of learning. As second lady, Biden brought attention to the importance of community colleges to America's future, among other issues, all while continuing to teach as a full-time English professor at a community college in northern Virginia. Moore is a bestselling author and a social entrepreneur. He founded BridgeEdU, a platform for college completion and job placement, before joining Robin Hood, the largest poverty-fighting organization in New York. As part of the University-wide *Power of Penn Campaign*, the *Extraordinary Impact Campaign* will enable Penn GSE to continue to hone and develop its core strengths and priorities. Pictured (1) from left to right are **Wes Moore**, **Dean Grossman**, **Dr. Biden**, and **President Gutmann**. See pages 16 and 33 to learn more about the event and the campaign.



Photo by Brooke Slezak Photography

■ Dean **Pam Grossman** (2) was inducted into the American Academy of Arts & Sciences. The highly prestigious honor involved a three-day series of events in early October. Members of the 2017 class include winners of the Pulitzer Prize and the Wolf Prize; MacArthur Fellows; Fields Medalists; Presidential Medal of Freedom and National Medal of Arts recipients; and Academy Award, Grammy Award, Emmy Award, and Tony Award winners. Founded in 1780, the American Academy of Arts & Sciences is one of the country's oldest learned societies and independent policy research centers. Penn GSE's Dr. Bob Boruch is also a member, as well as GSE secondary faculty member (and Penn president) Dr. Amy Gutmann.

■ Professor **Vivian L. Gadsden** (3) has been named a standing faculty leader of the Penn Futures Project, along with Dr. Terri Lipman of Penn Nursing. Launched in 2015, Penn Futures is a cross-school initiative by Penn GSE, Penn Nursing, and Penn Social Policy and Practice to address issues of health and well-being for families in Philadelphia and beyond. Through Penn Futures, projects involving students and

faculty from all three schools are changing how the city of Philadelphia uses big data to deliver social services; forging groundbreaking partnerships among teachers, counselors, social workers, and nurses at a high school in the Kensington neighborhood; and developing better ways to serve LGBTQ students. Gadsden, the William T. Carter Professor of Child Development and Education at GSE, directs the National Center on Fathers and Families.

■ Professor **Yasmin B. Kafai** and Michael Eisenberg from University of Colorado Boulder received a \$1.2 million grant from the National Science Foundation for their project "Debugging by Design: Developing a Tool Set for Debugging with Electronic Textiles to Promote Computational and Engineering Thinking in High School." The project's goal is to strengthen teachers' and students' computational and engineering thinking by helping them to locate and fix problems in their software and circuit designs. Dr. Kafai is the Lori and Michael Milken President's Distinguished Professor. See page 20 to learn more about this and other projects by Kafai.

■ Research Assistant Professor **Sarah Schneider Kavanagh** (4) and a cross-institutional team of researchers recently received a \$2.5 million grant from the James S. McDonnell Foundation to study how teachers learn to support disciplinary argumentation when facilitating classroom discussions. Focusing on the role of instructional tools in discussions, the study will be conducted across five years as a collaboration among researchers at four institutions: Penn, the University of Wisconsin, the University of Colorado, and the University of Washington.

■ Professor **Janine Remillard** (5) and her collaborators from Sweden, Belgium, the United States, and Finland received an award of \$970,000 from the Swedish Research Council for the project "Teachers' Use of Mathematics Curriculum Resources in the 21st Century: A Cross-Cultural Project" led by Mälardalen University in Sweden. The study will examine elementary teachers' use of print and digital mathematics curriculum resources from a cross-cultural, twenty-first-century perspective.



Re-imagining Teacher Education at Penn GSE
Penn GSE has launched the Collaboratory for Teacher Education at Penn GSE, a laboratory for the design, implementation, and study of experimental approaches to teacher education. "Guided by our commitments to diversity and equity, developing core practices, and the power of inquiry in teacher development, we collaborate with educators, schools, districts, and researchers to create opportunities for teacher and teacher educator development," says Professor **Janine Remillard** (5), faculty director of teacher education. The Collaboratory is home to several teacher education programs at Penn GSE, which provide multiple pathways to excellence in teaching. These include the Urban Teaching Apprenticeship, the Urban Teaching Residency, and the Independent School Teaching Residency. The Collaboratory is also a growing hub of resources for teachers, teacher educators, and teacher education researchers. It pursues its mission of advancing teacher education through program innovation, research, teacher educator development, public engagement, instructional innovation, partnerships, initiatives in diversity and equity, and advocacy. ■



Catalyst @ Penn GSE Launches to Advance Innovation

Building upon the School's history of leadership in education innovation, Penn GSE has launched Catalyst, a new endeavor for innovation. Both a collection of unique programs and a facilitator within and beyond the School, Catalyst sparks ideas and ventures, provides development and support for leaders and professionals, and connects diverse constituencies to solve persistent and emerging problems in education.

"Catalyst brings together the people and the approaches needed to make education more effective," says Executive Director **Michael Golden**, GRD'07 (6), who joined Penn GSE last fall and is a graduate of the School's Mid-Career Doctorate in Educational

Leadership program. Catalyst's new and established programs cut across sectors to serve educators, entrepreneurs, researchers, policymakers, investors, business leaders, and others.

To further engage with these professionals, Catalyst has launched a series of intensive boot camps and workshops in education entrepreneurship to provide year-round community building. In addition, a new initiative in short-cycle inquiries empowers leaders to use data, learning networks, and crowdsourcing to address issues in their schools. Catalyst has also begun a series of convenings, conversations on provocative issues in education.

Along with the new programs, Catalyst encompasses various established Penn GSE programs in innovation and professional development, such as the Milken-Penn GSE Education Business Plan Competition and Conference, the Virtual Online Teaching (VOLT) certificate program, the Penn Literacy Network, the Penn GSE Consortia for Excellence and Equity, and the Center for School Study Councils. ■

IN THE MEDIA

As leading voices in the field, Penn GSE faculty regularly weigh in on top issues in education. Here are a few highlights of their recent contributions in the media:

"Starbucks is Planning Racial Bias Training. Here's What a Penn Professor Says It Should Involve"

Philadelphia Inquirer

April 19, 2018

Howard Stevenson offers recommendations for effective training on unconscious bias and coping with racially charged situations.

"No End in Sight for Campus Free Speech Battles"

Inside Higher Ed

March 8, 2018

Sigal Ben-Porath, participating in a panel discussion, recommends that institutions create inclusive environments that encourage students to weigh in.

"A Call for Elite Schools to Redefine 'Merit'"

Diverse Issues in Higher Education

February 19, 2018

Manuel S. González Canché writes about colleges and universities with need-blind admissions practices and the need for highly selective education institutions to redefine "merit."

"U.S. Proposals Could Shut Poorest Students Out of Universities"

Times Higher Education

January 8, 2018

Joni Finney discusses the Promoting Real Opportunity, Success, and Prosperity through Education Reform (Prosper) Act.

"Preparing the Next Generation of Educators for Leadership"

NEA Today

December 12, 2017

Richard Ingersoll comments on teacher retention, in particular the importance of teachers being treated as professionals and having a voice in school-wide decisions.

Names in **bold** are members of the Penn GSE faculty.

Visit www.gse.upenn.edu/news/in-the-media or follow @PennGSE on Twitter to stay up to date on Penn GSE in the media.

A LANDMARK OF TWENTY-FIRST-CENTURY LEARNING

by Juliana Rosati

← The new entrance to 3700 Walnut Street will include a new lobby that leads to a four-story student pavilion with areas for individual and group work. (See *inside front cover* for exterior view.) Renderings on pages 6-11 courtesy of Atkin Olshin Schade Architects

Penn GSE Plans State-of-the-Art Home for Education on Campus

What does learning look like? In recent years, education has expanded beyond the traditional image of an instructor who imparts knowledge to an audience of learners. Innovative practices across K-12 and higher education ask students to spend class time brainstorming problems in the world around them, developing possible solutions, conducting research, and learning by creating—through computer programming, 3D printing, crafting, and more.

This shift to active and hands-on forms of learning requires state-of-the-art facilities. As an international leader in education research and practice, Penn GSE is embarking upon a building expansion to keep the School at the forefront of a new era in education.

“This is a tremendous opportunity for Penn GSE to design educational spaces from the ground up, based upon cutting-edge knowledge of how to support active learning,” says Dean Pam Grossman.

By strategically expanding the School’s central building at 3700 Walnut Street, merging it with nearby Stiteler Hall, and adding a two-story addition that will include a new center for innovation, the project will give Penn GSE nearly 25,000 additional square feet of flexible and technologically advanced learning space right in the heart of campus.

The project will also allow the School to house the majority of its programs, students, faculty, and staff on campus in one location, consolidating them from a current total of five sites on and off campus and capitalizing on the scope that the School represents today. Encompassing teaching, counseling, leadership, policy, language diversity, learning technology, entrepreneurship, and more, the work of Penn GSE touches every aspect of education.

“The enhanced facility will create an interdisciplinary hub for educators,” says Dean Grossman. “Future early childhood and K–12 educators, researchers, policymakers, entrepreneurs, chief learning officers, and others will learn side by side.”

With an internationally regarded faculty who develop and promote innovative practices in education locally, nationally, and globally, the School is well equipped with the expertise to create a landmark of twenty-first-century learning.

A Model of Twenty-First-Century Learning Spaces and Technologies

Not since the 3700 Walnut Street building was completed half a century ago has Penn GSE constructed a new facility. Founded as a small undergraduate school in 1914, Penn GSE grew during its first fifty years into a robust graduate school that required a new, dedicated home. The 3700 Walnut Street building, finished in 1965, was remodeled in 2001. Today it houses only a fraction of Penn GSE’s people and programs, with distinctly twentieth-century classrooms. Given what research reveals about environments for active learning, new approaches to design are essential.

“Buildings have to become more flexible. They have to allow instructors to reconfigure spaces for the learners who are in

↓ This photo of 3700 Walnut Street was taken circa 1965, shortly after the building’s completion. Penn GSE was originally established as the School of Education in 1914 and located in College Hall. In 1940, the School moved to Eisenlohr Hall, its first dedicated building. In 1961, the School was restructured and renamed the Graduate School of Education. Photo courtesy of University of Pennsylvania Archives



“THIS IS A TREMENDOUS OPPORTUNITY FOR PENN GSE TO DESIGN EDUCATIONAL SPACES FROM THE GROUND UP, BASED UPON CUTTING-EDGE KNOWLEDGE OF HOW TO SUPPORT ACTIVE LEARNING.”



← The project will merge the 3700 Walnut Street building with the nearby Stiteler Hall (pictured left) and add a two-story addition with an innovation laboratory (pictured center) in the Social Science Quadrangle.

Key Building Features

Four-story glass pavilion

- New lobby on Walnut Street
- Student lounges and group study rooms on every floor

Enclosed glass walkway connecting 3700 Walnut Street building and Stiteler Hall

Approximately 11,000 square feet of additional classroom/student space

- Abundant natural light
- Ample learning spaces that are both flexible and technologically advanced
- Flexible seating, movable walls, breakout space
- Space for all executive education programs to be housed on campus
- Responsive technology, including interactive whiteboards

Innovation laboratory with makerspace

Outdoor plaza and gathering space

them,” explains Penn GSE Research Assistant Professor Sarah Schneider Kavanagh. “We know from research that learning happens through activity—speaking with classmates, moving through space, and making things.”

Driven by research on the value of collaboration and interaction in learning, the concept of a traditional classroom with rows of desks has given way in recent years to the broader notion of learning spaces that can be configured in multiple ways. These spaces allow teachers to customize the educational setting to a range of activities, from collaborative to individual work. In addition, an overarching shift away from lecture-format instruction to project-based learning has made students more active participants during class, an approach that makes flexible spaces and technological access essential.

Penn GSE faculty look forward to a collaborative design process that will draw upon their multiple perspectives. Those in the School’s teacher education programs envision the building as integral to producing the teachers of the future. “We want to prepare teachers who are ready to transform schools,” says Penn GSE Professor Janine Remillard, who is leading an initiative to re-envision the School’s teacher education programs so that they will develop, test, and adapt new teaching and learning approaches on an ongoing basis. (See page 5 to learn more.) “We want our students to understand what can exist in a state-of-the-art learning space,” she says.

Movable walls and seating, multimedia capabilities, touch-screen technology, and optimized sound and lighting will give Penn GSE’s enhanced facility the functionality to simulate a visionary K–12 classroom. This will allow teacher education students to practice the use of an advanced learning space, perhaps by hosting after-school programs for students in The School District of Philadelphia. “Excellent teachers use their space in complex ways,” says Penn GSE Assistant Professor Abby Reisman, whose research focuses on helping social studies teachers facilitate discussion of historical texts. “The students understand the learning habits that are built into that space because the teacher does a lot of work to establish them.”

The benefits of the facility will extend to the entire Penn GSE community as faculty in all programs utilize the new capabilities and features in their instruction. “Penn GSE in general has been way ahead of the curve for a long time in practicing very active pedagogies, and now more than ever, there is demand across higher education for flexible space,” says Penn GSE Professor Matthew Hartley, associate dean for academic affairs, whose research has advanced higher education internationally in Kazakhstan, India, and other countries. Rather than simply delivering information to an audience of students, faculty today are more likely to lead a class through a combination of small-group work and discussion. Dr. Hartley, a member of Penn GSE’s Higher Education division, sees interaction as key. “There are tremendous funds of knowledge in the classroom,” he says. “Many of our students have deep experience as leaders, from the entry level to deans and presidents. Instructional practices that allow us to tap the expertise in the classroom provide richer learning.”

Beyond the field of education alone, laboratories to fuel innovation are burgeoning. “If you look at places where really great innovation is happening, like Google, you’ll see people sitting in open spaces around tables discussing ideas,” says Penn GSE Professor Susan

“WE WILL BE THRILLED TO CREATE A HOME FOR ALL OF OUR DEGREE PROGRAMS AND STUDENTS AND TO LEVERAGE THAT PROXIMITY TO ESTABLISH NEW SYNERGIES, OPPORTUNITIES, AND NETWORKS.”

Yoon, whose research explores how technology such as mobile devices and computer simulations can enhance science education. “They’re looking at shared screens or interactive whiteboards. We call that ‘hive mentality’ or ‘swarm creativity.’ It’s both motivating and really productive.” To support such approaches and Penn GSE’s longtime commitment to innovation, the planned two-story addition to Stiteler Hall will include an innovation laboratory that will house Catalyst, the School’s new center for academic innovation. “We will use the space to facilitate creativity, collaboration, and productivity by students, faculty, alumni, entrepreneurs, visiting thought leaders, and community members who are striving to address complex problems in education through new solutions and ventures,” says Executive Director Michael Golden, GRD’07. (See page 5 to learn more about Catalyst.)

Within the laboratory, a “makerspace” will offer materials and equipment for creative work. Such facilities have grown out of the Maker movement, which embraces a “do-it-yourself” approach to technology and traditional crafts. The movement coincides with educational approaches such as project-based learning and design thinking, in which students learn through the process of conducting a project or creating an object. “Teachers are transforming their classrooms into makerspaces,” says Penn GSE’s Yasmin B. Kafai, Lori and Michael Milken President’s Distinguished Professor. Dr. Kafai, for example, has developed curricula that ask high school students to create with electronics, textiles, and synthetic biology. (See page 20 to learn more about Kafai’s work.)

In this multifaceted environment, Penn GSE students across the School will experience a state-of-the-art educational environment as they prepare for careers in which they will advocate for and design spaces to meet learners’ needs.

An Interdisciplinary Home for Education

Whether she is walking to and from her office in the 3700 Walnut Street building during the workday or attending late-night meetings and campus events, Dean Grossman sees Penn GSE students hard at work. “I am so struck by how well used this building is,” says Dr. Grossman. Areas such as the first-floor lounge and fourth-floor doctoral study space fill quickly with students seeking to work individually or collaboratively, depending upon their class assignments and research pursuits. Dr. Remillard, whose office neighbors the fourth-floor area, agrees. “Research is, for the most part, a collaborative endeavor,” she says. “We need more flexible space, like we have on this floor, with more opportunities for students to work with one another.”

Due to the level of demand and the range of needs, the building project will create a new entrance to 3700 Walnut Street leading to a four-story glass pavilion for students. This addition will offer different areas designated for individual and group work. Semi-private group space will be an asset, according to Penn GSE Student Government President Laronnda Thompson, a student in the Interdisciplinary Studies in Human Development Ph.D. program. “We tend to form writing teams in both the master’s and doctoral programs. You need to be able to collaborate to brainstorm for papers or workshop your classmates’ essays,” she says. “Students in certification programs need to discuss their fieldwork experiences—what’s working and what isn’t when they implement lesson plans in K–12 schools. And student government needs to meet with students to plan programming and address issues of student life.”

With expanded space for both class time and study, the enhanced facility will advance best practices in education and achieve another broad aim—that of consolidating all of the School’s degree programs from five on- and off-campus locations into one campus hub.

“We will be thrilled to create a home for all of our degree programs and students and to leverage that proximity to establish new synergies, opportunities, and networks,” says Grossman. The building will create a dynamic interdisciplinary setting for Penn GSE’s nearly 1,300 students. Future early childhood and K–12 educators, higher education leaders, researchers, policymakers, entrepreneurs, chief learning officers, and others will learn together as they prepare to transform lives through education.

The opportunity for regular interaction across programs will give students a dramatically enhanced experience of academic and professional community. Hartley views such connections as particularly pertinent to future educators, who must address challenges such as underfunded schools, varying approaches to reform, linguistic and national boundaries, and the link between educational access and economic opportunity. “Most of the issues that we’re dealing with in education are extremely complex,” he says. “We need to think together about how to enact positive change in a whole host of different contexts.”

The building will foster a community that unites master’s and doctoral students in traditional programs with those in Penn GSE’s executive-format programs, which meet for intensive weekend sessions to accommodate the schedules of working professionals. Representing nearly 40 percent of the School’s student body, executive students often attend class in spaces other than Penn GSE’s main building, not fully experiencing the campus community. The success of such programs is a significant source of the School’s growth and a result of its leadership in innovation.



↑ Movable walls and seating, multimedia capabilities, touch-screen technology, and optimized sound and lighting will accommodate a range of forward-thinking teaching and learning approaches.

“Executive students want to be more a part of the hustle and bustle on campus,” says Penn GSE Senior Fellow Michael C. Johaneck, who directs the Mid-Career Doctoral Program in Educational Leadership and chairs the School’s committee on executive-format programs. “They welcome opportunities to connect with Penn GSE students in other programs. They see that as critical to their work, particularly in their leadership roles.” Another executive program director, Penn GSE Senior Fellow Jenny Zapf, reports similar observations of the Education Entrepreneurship master’s program. “Our edu-preneurs are eager to find community partners, beta sites, cofounders, and others to help understand, test, and scale new education models.” Penn GSE Senior Fellow Annie McKee, director of the Chief Learning Officer (PennCLO) and Medical Education executive programs, agrees on the importance of cross-program connections. “Housed together, we will have the chance to get to know each other better and to learn so much about one another’s diverse backgrounds and experiences,” she says.

The centralized presence will also support the School’s national model of partnership through its work with The School District of Philadelphia. That work includes field placements of Penn GSE

students in teaching and counseling; professional development for District teachers; workshops in subjects like science, coding, and filmmaking for District students; research by Penn GSE faculty to improve education; alumni working as teachers and leaders; and more. “We are working locally in lots of ways to help solve problems in education,” says Yoon, who pilots her science curricula in the District and envisions working with District students in the enhanced building. “With a central location and more space, we can serve as the glue to develop robust, healthy, interactive, innovative communities,” she says.

Of course, all of Penn GSE’s work contributes to and engages with the world-class research university environment of Penn. Grossman notes that in the context of the University’s local, national, and global mission, the promise of one integrated home for education holds an added significance. “Education is at the core of the University’s mission,” she says. “To have a school of education at the center of campus with a strong, multifaceted presence sends the message that we value education at all levels, from preschool through graduate school. I think that is an incredibly powerful statement to make.” ■

The building project is part of Penn GSE’s Extraordinary Impact Campaign. See page 16 or visit www.gse.upenn.edu/support/extraordinary-impact to learn more.



EDUCATING BEYOND BOUNDARIES

PENN GSE ALUMNI PURSUE CROSS-DISCIPLINARY CAREERS

by Lini S. Kadaba



Photography by iStock.com/leolinrang

Education exists in the world, not apart from it. Knowing that the power to enact meaningful change often comes through partnerships with other fields, Penn GSE creates cross-disciplinary connections to address issues such as community health and welfare, workforce management, the need for innovation, and global educational access. The same is true of Penn GSE alumni. Here, four graduates share stories of impactful careers that transcend traditional boundaries to pair education with psychology, corporate leadership, business and technology, and international development.

“If you are thinking scientifically, you realize you could be wrong, and that brings a lot of humility to your own position. It’s very powerful.”



Discovering How Injustice, Biases, and Learning Are Linked

Clinical and social psychologist Mona Sue Weissmark, GR’86, is best

known for groundbreaking social experiments that brought children of Holocaust survivors face-to-face with children of Nazis. She also famously convinced descendants of African American slaves and slave owners to meet.

“We know what justice means in legal terms, but what does it really mean in our lives?” asks Weissmark, a part-time associate professor of psychiatry and behavioral sciences at Northwestern University and a visiting professor of psychology at Harvard University.

Exploring that question in her research, Weissmark confirmed that the emotions surrounding historic injustices are passed down, often learned through stories, from generation to generation. The process keeps alive feelings such as trauma, resentment, anger, and vengefulness on the part of victims, while sustaining guilt, denial, hatred, and shame on the part of perpetrators.

In her 2004 book *Justice Matters: Legacies of the Holocaust and World War II*, Weissmark argued that the cycle can be broken if the descendants of each group are willing to find respect for each other.

The 2006 documentary *Seeing the Other Side—60 Years After Buchenwald* traces her own journey beyond past injustice. The daughter of Holocaust survivors, Weissmark grew up assuming

that all Germans are anti-Semitic. As an adult, she came to recognize the gratitude she owed the German family who sheltered her father after his escape from a concentration camp. Thanking them in person helped her overcome anger and resentment.

In her search for answers, Weissmark constantly moves across disciplinary boundaries. She attributes this approach to her experience as a Ph.D. student in the Education, Culture, and Society program at Penn GSE.

“I am so grateful to that program,” she says. “Its whole point—and I think it was extremely unique—was a holistic view of education and the importance of context in mediating relationships between social and cultural influences and educational experience.”

In her forthcoming textbook, *The Science of Diversity*, Weissmark draws upon multiple fields to explore the concept of diversity, the failure of many corporate diversity training programs, and the origins of bias.

Weissmark, who completed a postdoctoral fellowship in psychology at Harvard, reports that her research shows a biologically based tendency to favor one’s own group. “That’s why you can’t simply say, ‘Get rid of your biases,’” she says.

Understanding that both biology and intergenerational learning are sources of biases, Weissmark argues that biases can be unlearned. She offers a three-step process to come to an understanding, appreciation, and respect for others, an approach that includes applying the scientific method.

“If you are thinking scientifically, you realize you could be wrong, and that brings a lot of humility to your own position,” she says. “It’s very powerful.”



Promoting the Value of Learning in the Workplace

Before entering corporate leadership, David DeFilippo, GRD'13, drove a UPS truck. The nine-month stint in 1992 was the starting point to management for the former Spanish teacher, a way of learning on the front lines to really understand the business.

That commitment to learning offered the theme for his subsequent

career. UPS placed him in a management rotation that included participation in a corporate training project. DeFilippo provided instruction and evaluated curricula, translating his teaching skills to a new setting.

“That project led me to what I’ve done for the last twenty years,” he says. At companies including Comcast, Capital One Financial, and BNY Mellon, DeFilippo has overseen corporate functions dedicated to learning and talent development, including employee training, leadership development, and executive coaching. He determines how to hire the best people, how to engage them and manage their performance, and how to build better future leaders.

The first in his family to attend college, DeFilippo has always valued education. “Teachers and coaches in my younger years played a really important role in pushing me to believe I could be better than I was,” he says. “If I had not had the right coaches and teachers, I could have taken a different path.”

That personal experience keeps DeFilippo passionate about his

“Teachers and coaches in my younger years played a really important role in pushing me to believe I could be better than I was.”

work. Valuing education also brought him to Penn GSE. While chief learning officer for the asset management business at BNY Mellon, he earned an Ed.D. in the executive-format PennCLO (Chief Learning Officer) program at GSE.

“I think the real value and elegance of the PennCLO program is that it really wants working practitioners who can bring things from their day jobs into the classroom and bring the classroom into their day jobs,” he says.

Studying research methodologies in the program, for example, helped him construct stronger company surveys and focus groups at BNY Mellon. “That better data led to better solutions,” says DeFilippo, who authors a bimonthly column in *Chief Learning Officer Magazine*.

At Suffolk, a national construction management firm headquartered in Boston, he continues to put proven academic theory and data front and center. As he develops talent and coaches leaders, he favors empirical research over fads that have not been examined objectively.

DeFilippo has always found satisfaction in the tangible results that come from addressing business needs. Take sales and product training, which prepare employees to interact with customers. “It isn’t nice-to-have learning and education,” he says, “it’s need-to-have for the growth of the company.”



Delivering Education Through Business and Technology

For Norrizan Razali, GR'92, a modest upbringing in the Malaysian capital of Kuala Lumpur underscored the importance of education, especially English fluency, in opening doors to economic prosperity. Her path to leadership in business

and technology at Microsoft and Apple began with curiosity about English language acquisition in her native city.

“It’s always about enabling people to deliver education better.”

Razali had learned English at school in Kuala Lumpur and earned bachelor’s and master’s degrees in education in the United States. When she returned home in 1986, she became intrigued by pockets of the city where communities lacked English proficiency despite being surrounded by English speakers.

“That, to me, was an interesting paradox,” she says. Subsequently pursuing a Ph.D. at Penn GSE, Razali sought to understand “how a community picks up learning.” She took the opportunity to work across schools and disciplines at Penn, connecting with pioneering cultural anthropologist Ward Goodenough.

In her study of a poor urban community in Kuala Lumpur, Razali used a model developed by Goodenough, applying anthropological techniques to observe English language acquisition. “I became one of the first Ph.D. students to take that approach to language in Malaysia,” she says.

Razali’s research confirmed that English skills were frowned upon in these communities due to cultural factors. At the same time, she noticed that the children recited English lyrics to pop songs, though they didn’t know the meaning of the words. She recommended capitalizing on this trend through a learning approach that used songs to teach English.

That project sparked her career in delivering education to communities, often through the use of technology. Throughout, she says, her Penn GSE education has given her credibility. “I’m recognized as an educationist. Because of my Penn degree, I have a passport for that,” she says.

As a senior analyst for the Institute of Strategic and International Studies in Malaysia, she worked on World Bank projects, including nationwide technical and vocational education in collaboration with



Bringing Education to Nations of Students

Throughout his career, first as an educator and now as a developer of international social-impact programs, Christopher Ashford, GR'00, has wanted to improve the lives of children.

At each stop on his path from English teacher to

leadership at several of the largest international development firms in the world, he has aimed to broaden his reach.

After teaching, Ashford set his sights on the role of superintendent at an urban school district, seeking the potential to influence the education of thousands. He came to Penn GSE to prepare for such an administrative post. However, by the time he graduated with a Ph.D. in education and human development, he envisioned impact on a national scale.

He had experienced two defining moments at Penn GSE. First, he earned the Mellon Fellowship to study abroad in Botswana, which exposed him to the needs of developing countries. Second, he worked with Margaret Beale Spencer, a professor of child and developmental psychology at Penn GSE at the time.

Ashford recalls that Spencer took him under her wing, mentoring him and other African American students on the path to a doctorate. “I felt like I had found a home,” he says. Under Spencer’s

the Ministry of Education. She later joined a government project that introduced technologically advanced “smart” schools through eighty-eight pilot schools. “You need to know how to engage teachers to use and optimize technology,” she says of such work.

Since 2013, Razali has focused on educational development through sales, first as education director for Microsoft Malaysia and most recently as business development manager for Apple Malaysia.

At Microsoft, she managed an educational sales team whose biggest client was the Malaysian Ministry of Education. At Apple, she developed sales strategies to increase adoption of a one student-one device program in public school classrooms, providing guidance to school leaders and helping teachers integrate digital technology into their pedagogy.

Now embarking on a new chapter, she is planning her own business venture that will build upon her expertise in educational leadership and technology integration.

“It’s always about enabling people to deliver education better,” she says.

“Penn GSE shared my interest in viewing education within a context and not in a vacuum.”

tutelage, Ashford studied career trajectories of special-needs African American boys in urban environments, using a theory that the professor had developed.

Since receiving his doctorate, Ashford has spent the bulk of his career working for international agencies in Africa, the Middle East, and Asia, implementing education as one of several fundamental factors that improve lives. He manages diverse, multimillion-dollar projects in education, youth development, food and water security, renewable energy, and small business development. Always, he says, the goal is scalable and sustainable impact.

“I focus on putting together a very dynamic team and identifying local and national talent who can come in after me and manage the work,” says Ashford. In his current role as managing director, lead technology strategist, and chief of party at Chemonics International, he is overseeing Rwanda’s national literacy program for 2.5 million schoolchildren. The \$75 million USAID contract is meant to develop not only quality reading materials, but also quality teacher training efforts. “Our work is building out whole education systems,” he says.

Next, Ashford heads to Bangladesh to start an education program under a \$100 million contract—the largest in the world, he says. He credits Penn GSE with the foundation for his career path.

“Penn GSE shared my interest in viewing education within a context and not in a vacuum,” he says. “It was an amazing place to study and a great place to launch my career.” ■

EXTRAORDINARY IMPACT

Introducing
THE CAMPAIGN FOR  PENN GSE

LAUNCHED IN APRIL 2018, THE EXTRAORDINARY IMPACT CAMPAIGN IS A \$75 MILLION FUNDRAISING EFFORT. IT SUPPORTS PENN GSE FACULTY, STAFF, STUDENTS, AND THE WORK THEY DO TO CREATE OPPORTUNITY THROUGH EDUCATION AND IMPROVE LEARNING OUTCOMES LOCALLY, NATIONALLY, AND GLOBALLY. WE INVITE YOU TO EXPLORE THE CAMPAIGN'S PRIORITIES.



Rendering courtesy of Atkin Olshin Schade Architects

HOW DOES PENN GSE PREPARE THE NEXT GENERATION OF EDUCATION LEADERS?

PRIORITY #1

BUILD INNOVATIVE AND STATE-OF-THE-ART LEARNING SPACES AND TECHNOLOGIES.

Innovative practices across K-12 and higher education ask students to spend class time brainstorming problems in the world around them, developing possible solutions, and learning by creating—through computer programming, 3D printing, crafting, and more. As an international leader in education research

and practice, Penn GSE is embarking upon a building expansion that will keep the School at the forefront of a new era in learning, consolidate our degree programs in one location, and create a multifaceted home for education on campus. *See this issue's cover story starting on page 6 to learn more about the building project.*



Photo by Daniel Burke Photography

HOW DOES PENN GSE PROVIDE A DYNAMIC VISION FOR EDUCATION?

PRIORITY #2

IMPROVE STUDENTS' LEARNING IN A CHANGING WORLD.

Penn GSE produces the transformational leaders the world needs at every level of education. Our more than 16,000 alumni have a global impact as teachers, counselors, entrepreneurs, chief learning officers, researchers, policymakers, K-12 and higher education administrators, over forty-five college presidents, and other education professionals. The School's longtime

commitment to innovation will continue to fuel cutting-edge experiences for our students, groundbreaking research by our faculty, and pioneering programs for working professionals. Our new center for innovation will develop, test, and deploy new models to improve education in a twenty-first-century context.

Photo by Greg Benson Photography



HOW DOES PENN GSE SHAPE OUR COUNTRY'S FUTURE?

Photo by Greg Benson Photography

PRIORITY #3

ENHANCE DEMOCRACY BY PREPARING LEADERS AND CITIZENS.

Penn GSE directs the national conversation about education, addressing a wide range of topics such as best practices in STEM education, effective approaches to standards reforms, and the broad societal implications of the cost of higher education. Our researchers rank all fifty states for college affordability,

integrate data about children's education and welfare, promote broader teaching of twenty-first-century skills, and more. We further strengthen the national landscape by attracting and supporting talented educators and preparing them to be teachers and principals who help every child learn.



HOW DOES PENN GSE HELP OPEN DOORS AROUND THE WORLD THROUGH EDUCATION?

PRIORITY #4

ADVANCE AND PROMOTE BEST EDUCATIONAL PRACTICES LOCALLY, NATIONALLY, AND GLOBALLY.

On an international scale, education holds the potential to reduce poverty and disease, foster peace and gender equality, and create sustainable economic development. Penn GSE is leading the way to address the particular obstacles that stand between education and underserved, refugee, or immigrant children. We shape universities in Kazakhstan, contribute to

reforms in K-12 and higher education across India, enhance educational leadership in Chile, and improve education in coffee-producing communities of Nicaragua. In our interconnected and diverse world, our commitment and results will only increase in importance.



HOW DOES PENN GSE SERVE LEARNERS OF ALL AGES?

Photo by Greg Benson Photography

PRIORITY #5

CREATE ECONOMIC OPPORTUNITY AND HOPE THROUGH EDUCATION.

At Penn GSE, we are working to make the life-changing power of education more available in the places where it is needed most in our nation and world. Our students, alumni, faculty, and staff conduct over 570 programs in more than 270 schools throughout The School District of Philadelphia.

This work creates a national model of partnership that addresses an array of challenges faced by urban schools in our nation—waves of school reform, lack of funding, and deep poverty. And we seek to recruit the finest scholars and educators, regardless of their ability to afford a Penn GSE education. ■

Let's have extraordinary impact together.

TO LEARN MORE ABOUT THE CAMPAIGN, see inside the back cover for photos of our April 18 launch event, visit www.gse.upenn.edu/support/extraordinary-impact, or contact us at 215.573.6623 or alumni@gse.upenn.edu.



Creating Through Electronic Textiles and DNA

PENN GSE'S DR. YASMIN KAFAI ADVANCES ACTIVE LEARNING

by Juliana Rosati



At a certain time of year, high schoolers run rather than walk down the hall to Jake Chipps's computer science classroom in Los Angeles. Upon arriving, they take out an array of colorful fabrics and electronic components. Soon they are deep at work creating stuffed animals, wristbands, hats, laptop sleeves, and other accessories, embedding them with LED lights that glow through circuitry and computer programming.

Such scenes occur during a unit in electronic textiles, or "e-textiles," developed by Penn GSE's Dr. Yasmin Kafai, Lori and Michael Milken President's Distinguished Professor. The unit will be released across the country this summer as a new part of Exploring Computer Science, a curriculum currently used in the nation's seven largest school districts and adopted by schools in twenty-five states as well as Puerto Rico.

"Students literally are running to class," reports Chipps. His classroom is part of a pilot led by Dr. Kafai in Los Angeles and Philadelphia with colleagues from the University of California, Los Angeles and the University of Oregon. The project is supported by a \$1.19 million grant from the National Science Foundation (NSF). Chipps credits e-textiles with helping to drive a dramatic increase in his classes' enrollment as well as the participation of girls and students of color. "When students walk around school with the items they've made, they catch their classmates' attention," says Chipps, chair of his school's computer science department. "That's been a huge draw."

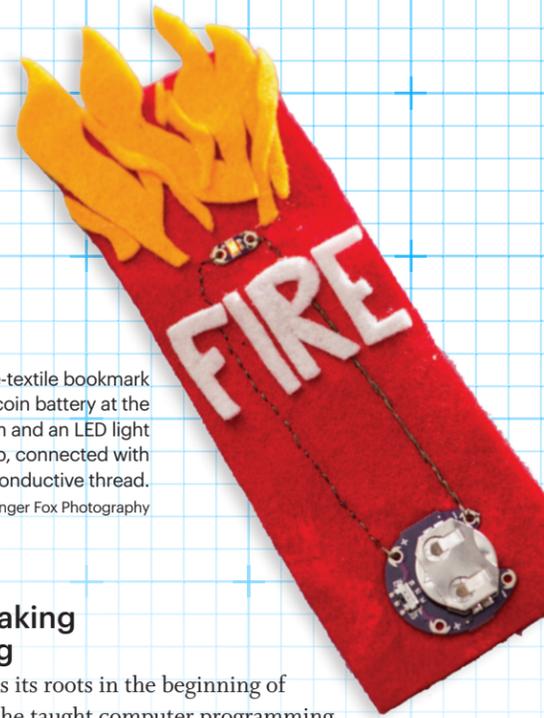
Such results reflect the multiple aims of Dr. Kafai's work—to increase diversity in the field of technology, to strengthen learning by asking students to create, and to take advantage of the social aspects that learning can entail.

"For me, this has always been one of the big questions—what kind of activities can be created that are inclusive and will bring in particular groups who have been largely absent from computing?" Kafai says.

Kafai has spent thirty years at the forefront of computer learning and is world-renowned in the field of learning sciences. Whether she uses e-textiles, video games, or—most recently—synthetic biology to improve learning, the themes of access, creativity, and community distinguish her groundbreaking approaches.

"What kind of activities can be created that are inclusive and will bring in particular groups who have been largely absent from computing?"

← E-textiles combine electronics with fabric and sewing. Dr. Kafai's learning-by-making approach engages students in computing while spurring their creativity. Photo by Ginger Fox Photography



→ A fiery e-textile bookmark has a coin battery at the bottom and an LED light near the top, connected with stitches of conductive thread. Photo by Ginger Fox Photography

Learning by Making and Interacting

The e-textiles unit has its roots in the beginning of Kafai's career, when she taught computer programming (also known as coding) by having children design their own video games.

"Early on, kids would say to me, 'I love to play video games, but can I make my own?' It struck me as really interesting that kids wanted not only to consume video games, but also to make them," says Kafai of her inspiration.

One of her earliest books, *Minds in Play: Computer Game Design for Children's Learning* (Routledge, 1994), followed students at an inner-city public elementary school as they transformed their classroom into a game design studio for six months. Later, Kafai and her colleagues at the MIT Media Lab developed Scratch, the world's largest programming community for children. Located at scratch.mit.edu, it also holds the largest collection of games designed by children for children. Participants learn by creating and by receiving their peers' feedback.

The notion of using creativity and community to fuel learning has its origins in the ideas of the legendary Dr. Seymour Papert, Kafai's mentor while she was a postdoctoral fellow at MIT. His Constructionist theory states that actively making things in the world is the most effective way for people to build knowledge.

"Creating is a very powerful way of learning because it helps you to externalize your thinking," explains Kafai. "You create something that is shareable and visible. Your teacher and peers can interact with it, and this gives rise to great conversations."



← An e-textile wristband features a face with LED lights for eyes. Photo by Ginger Fox Photography

Papert's concept and Kafai's work expanding upon it anticipated two current trends in education—the Learn to Code movement and the Maker movement. The push to teach coding in schools includes ambitious plans by the districts of New York City, San Francisco, and Chicago. Proponents view coding as a way to prepare students for the jobs of the future and equip them with the computational thinking and programming skills to meet the K–12 Computer Science Framework developed in 2016 by a national coalition. The separate but related rise of the Maker movement began outside of education with communities and fairs promoting a “do-it-yourself” spirit in both technology and traditional crafts.

“What’s become popular now is matching up with what Yasmin has been doing all along,” says Debora Lui, GR’16, who works with Kafai as a postdoctoral fellow and wrote her dissertation on the Maker movement.

Shedding Light on Technology and Gender

While many schools teach computer programming through robotics, student participation often mirrors the lack of women and minorities in the field of technology at large. Kafai wants to appeal to a broader audience by providing an alternative means to learn the same skills.

The e-textiles unit, currently being piloted by seventeen Los Angeles teachers through the NSF grant, will be published as an optional substitute for robotics in the six-part Exploring Computer Science curriculum. Developed in coordination with a smaller, Philadelphia-based pilot, the unit will give teachers across the country a powerful new tool for engaging students in coding.

Over the course of three years, Kafai's team members in both cities have refined the unit. “We look at the effectiveness of the curriculum in terms of what students learn and how they learn—not just computer science concepts, but also how capable they feel of expressing themselves through this medium,” says Dr. Lui, who oversees much of the project in Philadelphia.

Students devise their own projects, sew with conductive thread, and write computer programs for microprocessors (miniature



↑ Eleventh graders in The School District of Philadelphia create an e-textile knit glove by sewing a sensor into the fabric. Photo by Jeff Frantz

computers) that they attach to their accessories. Some projects incorporate sensors that cause LED lights to activate in response to the moisture of the wearer's skin. By creating circuits, switches, and computer programs, students learn what is behind the shiny exteriors of most electronic devices—knowledge that can prepare them not only for STEM careers but also for informed citizenship in a world of constant digital communication and data security issues. “Kids need to know that technology is not magic; somebody designed it and made decisions about what to include and exclude,” Kafai says.

Through the combination of electronics and sewing, students gain insight into the workings of both technology and gender stereotypes. “Boys will say, ‘Sewing is a girl’s sport.’ They are the ones, by the way, who are always most proud of their stitching in the end, whereas the girls tend to move more towards the coding,” Kafai observes. She considers addressing stereotypes a critical step toward diversifying the field of technology. “It’s not just a matter of bringing more people into the workforce; it’s also a matter of changing perceptions,” she says.

Designing With Biology

What if students could create by manipulating microorganisms? Extending her work beyond computer science, Kafai is piloting a new curriculum that uses biology as a medium for designing pigments, sensors, and vitamins.

In collaboration with Associate Professor Orkan Telhan of PennDesign and Dr. Karen Hogan from the Department of Biology in the School of Arts and Sciences, Kafai has found an affordable, safe adaptation of professional-grade laboratory techniques in synthetic biology. At the commercial level, synthetic biology produces vitamin-enriched foods and has recently been used to create environmentally sustainable dyes and fabrics.

Using a portable device called the bioMAKERlab, students in Philadelphia schools and the Franklin Institute insert new DNA into microorganisms that they grow to reveal genetically designed traits. If the activity is a success, a pattern “painted” with bacteria in a petri dish emerges in a student's intended color, bacteria in a bag glow under ultraviolet light after exposure to a sugar or pollutant, or genetically modified yeast enrich a baked cake with beta-carotene.

“Students experience the practical applications of biology and are situated as designers of the process,” says Justice Walker, GEN’12, a Ph.D. student in the Teaching, Learning, and Leadership program at Penn GSE. Formerly a high school biology teacher for eight years, Walker oversees much of the pilot program.

“In some ways the design experience is different than in e-textiles, but I think it is equally rich in learning opportunities,” says Kafai of the project, which is supported by a \$300,000 NSF grant and is now in its second year. “In the future, a lot of things in our world will be grown through synthetic biology because it’s just more sustainable.”

Dr. Sheri Hanna, head of a high school STEM department in The School District of Philadelphia, sees that her students have come to understand biology better through the pilot. “We’re not just observing what biology does,” she says. “We’re trying to use what we’ve



↑ Dr. Kafai was cited as “someone whose legacy is in equal part the research and development she has done and the innumerable young scholars she has mentored,” when she received a lifetime achievement award at the FabLearn Conference at Stanford Graduate School of Education in 2017. Photo by Greg Benson Photography

learned about biology to see if we can manipulate it to do something we want to do. Students could understand more deeply how DNA works by taking it and applying it in a different direction.”

Like the e-textiles unit, the synthetic biology curriculum addresses the issues of access and citizenship. The bioMAKERlab device is designed by Dr. Telhan to be portable and affordable so that schools will be able to use it whether or not they have laboratory facilities, and assignments ask students to consider the potential pros and cons of synthetic biology for the environment and society.

“It’s more than just teaching them to be scientists and hoping for them to be in the STEM pipeline, though we want that,” says Walker. “We’re asking them to be aware of the advances the field is taking because, ultimately, this world will be theirs to live in.”

↑ Penn GSE doctoral student Justice Walker, GEN’12 (pictured right), teaches two students at the Franklin Institute to design by manipulating microorganisms. Photo by Greg Benson Photography

Looking Ahead

At the 2018 International Conference of the Learning Sciences in London this June, Kafai's teams will share research demonstrating learning benefits of both the e-textiles and synthetic biology projects. With the support of an additional \$1.2 million NSF grant, the e-textiles team has begun another curriculum in collaboration with a colleague at the University of Colorado Boulder, one that will focus on debugging and problem-solving in e-textiles.

Knowing that large-scale implementation of any coding curriculum in K–12 classrooms will depend upon teacher education, Kafai is working to address the nationwide need for teacher preparation in computer science. “In order to really make this accessible, you need widely available teacher education in computer science at state schools and community colleges,” she says. The e-textiles unit to be released this summer contains a professional development component for teachers, and Kafai is a member of an NSF-funded group aiming to lead the national conversation about the pipeline for computer science teachers.

From the vantage point of his classroom in Los Angeles, the benefits of learning by making couldn't be clearer to Jake Chipps. “I never hear the words ‘easy’ or ‘hard’ or ‘difficult’ in class,” he says. “Students have this thing they are excited to create. It doesn't matter if it's a difficult thing to do; they are going to figure out how because they want to do it.” ■

MINING for DATA GOLD

PH.D. STUDENT DIGS INTO RESEARCH ON MOOCs

by Karen Brooks

Nearly eighty million people have enrolled in a massive open online course (MOOC) since the web-based learning platform burst onto the education scene in 2011. **But 90 percent of them have never actually completed one.**

Juan Miguel “Miggy” Andres wants to figure out why the MOOC attrition rate is so high—and what can be done to reduce it. A Ph.D. student in Penn GSE’s Teaching, Learning, and Teacher Education program, Andres explores data on MOOC student behavior to identify signs that someone will or won’t follow a course through to its end.

“MOOCs are like Netflix shows—there are so many to choose from, and they cover a vast variety of topics,” Andres says of the approximately ten thousand courses offered by eight hundred-plus universities worldwide. Regardless of their content, he says, “at some point, many students seem to reach a place where they stop engaging.”

Research has shown that completing a MOOC benefits learners, whether they are conventional students or full-time professionals looking to boost their work performance. Andres therefore aims to find ways to get participants to stick with their courses.

Raised in the Philippines, where he earned his bachelor’s and master’s degrees in computer science, Andres began pursuing his doctoral degree in 2015 at Teachers College, Columbia University. He transferred to Penn GSE a year later alongside his mentor, Associate Professor Ryan Baker, who founded the Penn Center for Learning Analytics (PCLA)—a laboratory dedicated to investigating and improving teaching and learning methods through data.

Dr. Baker credits Andres with revolutionizing MOOC research by applying the techniques of data mining—a field in which researchers develop computer algorithms to find hidden patterns in large quantities of data—on a scale not seen before. “Miggy has conducted the largest-scale analyses of MOOC data in history,” says Baker. “His technical infrastructure has allowed us to take findings from small-scale studies and see if they can be generalized across a rich diversity of learners and content, which can help instructors design future MOOCs.”

The infrastructure Baker references is the MOOC Replication Framework (MORF), a software system that pinpoints patterns in massive quantities of research about MOOCs. Andres began developing MORF after he, Baker, and their colleagues noticed discrepancies among previous MOOC studies and wanted to determine which find-

ings they could reproduce. They also sought to expand the scope of data being analyzed—prior to MORF’s conception, most MOOC research was conducted by instructors who could access data only from their own courses.

With MORF, Andres has analyzed over one hundred data sets about the MOOCs that Penn offers for free to learners around the world through the Coursera and edX platforms. He has also analyzed data from the MOOCs of several other institutions, including Columbia and the University of Edinburgh in Scotland. “MORF supplies the computational power for researchers to ingest other people’s data sets while keeping everything privacy protected,” says Andres.

Andres is using MORF to dissect students’ interactions in discussion forums, responses to pre-course surveys, and other behaviors, in search of ways to predict who is at risk of abandoning a course. “If we can tell who is likely to drop out, then we can introduce interventions to support them so they stay,” he says. Those interventions might involve sending check-in emails to participants who have failed to log in to a course for a certain amount of time or offering badges as incentives for communicating in discussion forums.

A plan for interventions will help instructors to expend their attention effectively when faced with the vast numbers of students that MOOCs enroll, notes PCLA Associate Director Dr. Jaclyn Ocumpaugh. “What Miggy is doing will help instructors expend their resources in a way that’s beneficial to both individual students and the broader community of participants,” she says.

As a student at Penn GSE, Andres has found not only the opportunity to pursue groundbreaking research, but also the chance to learn outside of his comfort zone. While undertaking his course work, he surprised himself by discovering that he enjoyed his Education, Culture, and Society (ECS) class most of all.

“In computer science, everything is defined by concrete rules. ECS challenged me because the concepts were abstract and up for interpretation. I was completely out of my element and thought I would make a fool of myself the day I had to lead a discussion. But my anxiety ended up turning into excitement, and by the time it was my turn, I couldn’t wait to get started,” recalls Andres, who credits Professor Sigal Ben-Porath with drawing him into the subject matter.

With his course work now complete, Andres is conducting new analyses using a second, more robust version of MORF that the PCLA team recently built in collaboration with partners at the University of Michigan. Baker predicts an “incredibly bright future” for Andres, who expects to earn his Ph.D. by spring 2020.

“He is an excellent learner and an adaptive thinker who can succeed anywhere,” Baker says. “In five years I see Miggy being a faculty member at one of the strongest universities in the world.” ■

“IF WE CAN TELL WHO IS LIKELY TO DROP OUT, THEN WE CAN INTRODUCE INTERVENTIONS TO SUPPORT THEM SO THEY STAY.”

At Penn GSE, doctoral student Juan Miguel “Miggy” Andres has found the opportunity to pursue groundbreaking research and learn outside of his comfort zone. Photo by Ginger Fox Photography



Alumni Notes

1950s

Efthimia "Effie" N. Bastas-Christie, ED'58, teaches master's and doctoral courses at Kean University in Union, NJ, where she is a tenured faculty member in her thirteenth year, having retired from public education. She is elated her grandson will attend Penn this fall.

Erika Angermann Rigling, ED'57, is retired and serving as president of the Pacifica Historical Society in Pacifica, CA. For over thirty years, she taught K-8 and ESL in California, Pennsylvania, and Alaska. She has four sons and eight grandsons.

Miriam Kohn Sawyer, ED'58, is enjoying retirement with her husband in Fort Lee, NJ. She taught in various schools in New York and New Jersey and has traveled throughout the United States and Europe.

1960s

Ya'akov Aronson, ED'61, volunteers with Hesed VeMarpeh (Kindness and Healing), an organization in Israel that provides dental care, medicine, eye glasses, and counseling to underprivileged people.

Lynn Auerbach Kaplan, GED'66, is retired from elementary counseling and teaching in the school districts of Lower Merion and Hollidaysburg, PA. She was recently reunited with her stepsister after eighty years.

Ann Maddox, GED'64, practices private educational therapy. During her long career she earned her Ph.D. in educational psychology at UCLA and designed and led a program for adults with learning disabilities at Santa Monica College.

Phyllis Murray, GED'61, was featured in the lifestyle section of the *Scarsdale Inquirer*. The article covers her research on the early African presence in Scarsdale, NY.

1970s

Myrna Agris, CW'63, GED'73, GR'79, was promoted to associate vice president at Morgan Stanley in Houston, TX.

Benjamin M. Ashcom, GRD'74, has been the principal in the design and construction of fourteen New Jersey Supreme Court-mandated schools since his retirement in 2002. He is a docent for the Penn Museum's Classical Gallery and a member of the Museum's Board of Overseers Education Committee.

Michael Bentley, GED'72, is a regional consultant for Delta Education of School Specialty, Inc. He has been training science teachers to implement the Lawrence Hall of Science Full Option Science System program in Pennsylvania, West Virginia, Massachusetts, and Virginia.

Alice Korngold, CW'74, GED'77, published a study, "Better World Leadership," and will partner with IMPACT2030 to advance the U.N. Sustainable Development Goals by helping companies engage their employees in nonprofit board service.

Allen Massiah, C'74, GED'78, is a math teacher at St. Joseph High School in Trumbull, CT. He finds teaching truly rewarding as he assists young people with their growth.

Suzanne Rose, C'77, GED'78, is excited to return to Penn as senior vice dean for medical education in the Perelman School of Medicine. As daughter of Penn GSE Professor Emerita **Ryda D. Rose, CW'50, GRD'71**, she is honored to continue a legacy in education at Penn.

Susan G. Weidener, GED'73, is an author, writing teacher, and editor. She began the Women's Writing Circle nine years ago in Exton, PA. The group published an anthology, *The Life Unexpected*, in 2017.

Patrick M. Wolff, C'70, GED'71, G'74, transitioned to the field of alternative dispute resolution after a decade as a criminal justice professor. He is founder and president emeritus of Inafa' Maolek Conciliation, a company focusing on mediation and peacemaking.

1980s

Mindyjane Berman, GED'88, and **Richard Berman, D'92**, have created a thriving dental practice and a practice that advises students worldwide. Four years ago, they launched Pour Richard's Coffee Co., which has consistently been voted Best of the Main Line.

Bonnie Botel-Sheppard, GED'76, GRD'81, has been executive director of the Penn Literacy Network (PLN) at Penn GSE since 1990. She has had the pleasure of spending the past thirty-seven years on the PLN staff.

John Burns, GRD'89, has kept active since retirement as chair of the Youth Services Advisory Council and the Mental Health and Addictions Board in Cumberland County, NJ. He serves in the United States Coast Guard Auxiliary in Cape May.

Marylyn Calabrese, G'63, GR'87, had a busy year as a writing coach, helping individuals draft successful application essays for college and graduate school. She teaches summer classes on college application essays at the Tredyffrin Library in Strafford, PA.

Leslie Nicholas, GED'85, has retired and moved to Florida to work as a trainer at Walt Disney World. He is also a facilitator for YES (Youth Educational Series) programs.

Joseph Panza, GRD'80, has retired but is still teaching and consulting with a local disabilities organization, training advocates to create a more inclusive society for people with disabilities.

Inge Bancroft Webster, C'83, GED'84, GR'88, is a school psychologist in Pennsylvania's Lower Merion School District. She recently attended a conference on

mental health in schools, where she reunited with a Penn GSE classmate after almost thirty years.

Mona Sue Weissmark, GR'86, recently completed her book *The Science of Diversity*, to be published by Oxford University Press. She did a radio interview in November 2017 with KGO810, discussing why diversity programs fail.

Wendy Wollner, GED'85, is the CEO of Balancing Life's Issues, Inc. The company went global last year, expanding training programs to Qatar, Hong Kong, India, and many European countries.

1990s

Mary (Molly) Delaney Druffner, GED'90, is founder and program director of Partners 4 Hope Tanzania, which encourages growth through education. She works with women and children in Tanzania, providing financial, educational, and professional support.

Kimberly Erwin, GED'99, is co-owner and acquisitions editor at OneUniversal Media. In 2017 the company published a poetry collection, *The Black Bard: Book of Moses* by Americus Moses Kash III, in partnership with InterCultural Books.

Linda McKenna Gulyn, GED'86, GR'91, a psychology professor at Marymount University, recently published research about perceptions of blame for autism spectrum disorder. She has two pairs of teenage twin sons, one of whom has autism spectrum disorder.

Mia Henry, GED'98, is executive director of the Arcus Center for Social Justice Leadership at Kalamazoo College. She also operates a civil rights tour company and conducts trainings on justice and equity nationally.

Patricia Hughes, GED'92, is owner of Black Lab Rentals, LLC, a property rental company, and continues to work as a mental health therapist. Her eldest daughter is currently in Penn's Executive Master's Program for Counseling Psychology.

Shawn McCaney, GED'97, was appointed executive director of the William Penn Foundation. He was previously founding program director for the foundation's Creative Communities program.

Gloria J. McNeal, GNU'75, GR'98, is dean of the School of Health and Human Services at National University, which recently became the first

academic institution to achieve the Planetree Silver designation for person-centered health care.

Rachel Nelson Moeller, GED'91, is in her sixth year of leading the alumni relations department of Lafayette College, her undergraduate alma mater. Her son graduates from Boston University this spring and her daughter is a freshman at Lafayette.

Margaret Scarborough Roth, CW'98, GED'91, continues to enjoy her work as a senior staff therapist for the Council for Relationships. She is also active in the Council's Transcending Trauma Project.

Janice Showler, GR'92, has moved with her husband to Springhill, a continuing care retirement community in Erie, PA. Janice hopes to reconnect with her Penn GSE classmates in the near future.

Tom Wilfrid, GRD'90, was recently appointed a trustee of Bloomfield College in New Jersey. He and his wife have established an endowed scholarship at Bloomfield for "single parent scholars" with support from the Charlotte W. Newcombe Foundation.

William Zee, GED'98, is chair of the Education Law Group at Barley Snyder, LLP. He presented on "Legal Issues in Addressing Trauma in Educational Programming" for the firm's twenty-fourth annual School Attorney Conference in January.

2000s

Sara Allender, GED'04, is embarking on her tenth year at WestEd, where she conducts various implementation evaluations in school choice. She lives outside of Philadelphia with her husband and three children.

Kira J. Baker-Doyle, C'97, GED'98, GR'08, published her second book, *Transformative Teachers: Teacher Leadership and Learning in a Connected World* (Harvard Education Press, 2017). She was awarded the Rosemary and Walter Blankley Endowed Chair in Education at Arcadia University.



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Photo by Brooke Slezak Photography

Melissa Rebecca Brogdon, GED'09, was named director of development and communications at Emmaus House, a stabilization center in Atlanta, GA, that provides intervention services for families living in poverty.

Douglas Brophy, GRD'06, has been appointed head of school for the Town School in New York City, effective July 1, after ten years as academic dean at the Spence School.

Melisa "Misha" Cahnman-Taylor, GR'01, coauthored a new edition of *Arts-Based Research in Education* (Routledge, 2018) and received her third National Endowment for the Arts Big Read grant this year. She is professor of

language and literacy education at the University of Georgia.

Fran de la Torre, C'04, GED'07, facilitated an educator's workshop with fellow Penn alumni on Martin Luther King Day. Entitled "Immigration Advocacy for Educators," it took place at Penn's Greenfield Intercultural Center.

Dean M. Donaher, GRD'09, has announced his candidacy for the 138th District of the Pennsylvania House of Representatives, located in Northampton County.

Alexine Fleck, GED'95, GR'07, completed her Ph.D. in English at Penn and now teaches English at the Community College of Philadelphia.

Teppei Hayashi, GED'07, has taken on a newly created role as study abroad coordinator at Temple University Japan, having worked there as an academic advisor since 2016. On a recent visit to Philadelphia he reconnected with Penn GSE classmates.

Leexan Hong, C'98, GED'01, is president of Forged Iron Management, LLC, which plans to launch a private club in Center City, Philadelphia for professionals and entrepreneurs who live or work in the city.

Tia Keitt, GED'00, GCP'04, still feels inspired by her Penn GSE experience to see inspiration in every child and seek teachable moments in every lesson.

Cindy (Ting) Lin, GED'05, is manager for university programs at the University of California at Irvine (UCI). She began her academic advising career in the ESL program at UCI Extension.

Yvette Denise Mayhan, OT'80, GR'00, became project director for Talk With Me Baby, a language-based early brain development program at Grady Health System in Atlanta, GA, in June 2017.

Christine Kerlin Naserghodsi, GED'97, GED'05, was appointed vice president for the United Arab Emirates at GEMS Education. In this role she oversees teacher and leadership development for the TELLAL Institute. She recently enrolled in the PennCLO program.

Dennis P. O'Hara, GRD'06, received the Dr. Effie H. Jones Humanitarian Award from the American Association of School Administrators at its annual conference in February.

Joe Petrosino, GRD'07, is chief academic officer of Educational Assurance Solutions, LLC. He also teaches special education at Widener University and Rowan University and mentors student teachers and first-year principals.

Bernex Richardson, GED'09, recently became deputy director of programs for Black Girls Code, a company dedicated to providing African-American youth with the skills for computing jobs.

Karen Weaver, GRD'09, published her fourth in-depth analysis of college sports in *Change: The Magazine for Higher Learning* in January. The article discusses the potential impact of athlete-only training complexes on athletes' personal development.

Martha Wagar Wright, C'80, GR'02, was appointed dean of the new School of Education at LivingStone International University in Mbale, eastern Uganda. She also teaches linguistics and has helped start the university's English program.

2010s

Tony Alleyne, GRD'16, was named a 2017 "40 Under 40" honoree by the *Delaware Business Times* for his work as founder and executive director of the Delaware College Scholars Program, the state's only tuition-free residential college preparation program for high-achieving students with no clear path to college.

Nida Yasar Arafat, GED'11, recently coordinated the educational awards at the Ministry of Education-Directorate of Education in Nablus, where she is educational supervisor of math.

Melinda Bihn, GRD'14, is head of school at French American International School and International High School, San Francisco's oldest bilingual school and only PreK-12 independent school.

John Paul Brennan, GED'10, has transitioned into the financial services sector with AXA Advisors in Bala Cynwyd, PA, after nearly a decade of serving students as a teacher and leader. He looks forward to helping families fulfill their financial dreams.

Carlo Cinaglia, GED'16, is a visiting instructor at Saint Joseph's University. He teaches Spanish language as well as linguistics courses about second language learning and teaching, pragmatics, and intercultural communication.

Justin A. Coles, GED'13, will begin a tenure-track position this fall as assistant professor and program coordinator of English language arts in the Division of Curriculum and Teaching at Fordham University's Graduate School of Education.

Mahesh Daas, GRD'13, dean of the University of Kansas School of Architecture and Design, coedited *Towards a Robotic Architecture* (Applied Research and Design Publishing, 2018). His previous book addressed the role of architecture in higher education leadership.

Lourdes DelRosso, GED'16, wrote *Pediatric Sleep Pearls* (Elsevier, 2016), the first book about pediatric sleep medicine to be published in Spanish. She has joined the Seattle Children's Hospital as associate professor of medical education.

Michael J. Driscoll, GRD'14, was appointed dean of the Bolte School of Business at Mount St. Mary's University in Emmitsburg, MD, effective July 2018.

Adam Dunn, GED'13, has left the classroom after eight years and founded a nonprofit coworking space to accommodate local social entrepreneurs in Cleveland, OH.

Serena Fahnbulleh, GED'15, stepped into an education technology role in March 2017 at Persistence Plus, an organization that seeks to improve college completion. She hopes to connect with Penn alumni in the Boston area.

Kimberly Field-Marvin, GRD'16, was appointed headmistress-elect at Louise S. McGehee School in New Orleans, LA, effective July 2018.

Olufunke Fontenot, GRD'16, became interim regional vice chancellor for academic affairs at the University of South Florida in November 2017.

Victoria Fosdal, GED'13, was promoted to account supervisor at GMMB, a consulting firm based in Washington, DC. She provides strategic counsel to advance K-12 and higher education programs and policies.

Alicia Heffner, GED'17, is the literacy specialist at an arts-infused charter school in the South Bronx. Some of her recent projects include designing an after-school literacy lab and restructuring K-12 student support programming.

Peter Horn, GRD'14, started a monthly education podcast called Point of Learning last spring. The podcast focuses on what, how, and why we learn and is available on Apple Podcasts, Google Play, and YouTube.

Abraham Kou, GED'15, GED'16, completed his advanced alcohol and drug counselor certification while working in Thomas Jefferson University's methadone maintenance program.

Vincent Leone, GED'15, GED'16, recently transitioned from high school teaching to the health care field. He is an instructional designer for an organization that focuses on creating patient-centered care models for individuals with medical and social complexities.

Eva Yuxiao Li, GED'17, teaches ESL to international students at Monsignor Bonner and Archbishop Prendergast Catholic High School in Drexel Hill, PA. She also serves as the students' homestay coordinator through the organization International Education Opportunities.

Mark Bai Li, GED'14, is currently pursuing his doctorate at the University of Oxford. His research addresses Chinese children's vocabulary learning of Manchu, an endangered Chinese language, from the perspective of applied linguistics.

Li-ting "Lys" Lin, GED'15, joined New Mind Education in a role advising first-

year international students in college, helping them integrate into the hosting culture, and supporting them through their identity development.

Philip McAdoo, GRD'15, and his family wrote a children's book entitled *Every Child Deserves*, the first in a series of books dedicated to honoring youth in foster care and LGBTQ families.

Ellen McGeoch, GED'16, is director of strategic initiatives and partnerships at NeuroFlow, a health care technology startup in Philadelphia that aims to change perceptions of brain health.

Mackenzie (Remster) Nikolova, GED'14, teaches advanced language, composition, and literature at Fiorello H. LaGuardia High School of Music & Art and Performing Arts in New York City. She recently trained with one of former President Obama's speechwriters to bring speechwriting into her classroom.

Anthony Palombi, GED'16, GED'17, is a school counselor at Fordham Preparatory School in Bronx, NY. He works to identify, respond to, and raise awareness of mental health concerns and refer students to appropriate resources.

Ebbie Parsons, GRD'11, is a managing partner at Yardstick Management, which recently celebrated its sixth anniversary and expanded its consulting services to the health care industry.

Payal J. Patel, GED'14, recently presented "Reflective Meditations in the Mathematics Classroom" at a conference of the National Council of Teachers of Mathematics. She has launched a blog at learninginstillness.wordpress.com.

Jessica J. Pavelka, GED'14, has opened her own private practice counseling center in Philadelphia. It will expand to a second location in Chestnut Hill this year. She is truly grateful for her Penn GSE education.

Jasmine S. Phillips, GED'17, recently developed and funded the Phillips Memorial Scholarship to honor her mother, Linda F. Phillips.

Hernandez D. Stroud, GED'12, was named to the *Forbes* 30 Under 30 law and policy list for his research on drug addiction and the law. He is visiting assistant professor at Washington and Lee University School of Law.

Fan Sun, GED'14, is a health care product designer for Practice Fusion, recently acquired by Allscripts. She continues to value and apply the research skills and curiosity she developed at Penn GSE as she helps improve doctors' work and save lives.

Natalie Van Curen, GED'17, is completing her first year as an elementary school counselor for Tuxedo Union Free School District in New York.

Rong (Lotus) Wang, GED'12, obtained her Ph.D. in higher education and student affairs at Indiana University in July 2017. She currently works in undergraduate academic affairs as assistant director for academic strategy and policy at Virginia Tech.

Cong Zhang, GED'11, GED'12, completed a clinical internship and graduated with a Ph.D. in counseling psychology from Boston University. Her postdoctoral training at Massachusetts General Hospital/Harvard Medical School specializes in pediatric neuropsychological assessment.

Submissions have been edited due to space constraints and magazine style guidelines.

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CELEBRATING A CAREER BY CREATING A LEGACY



"I have had a really worthwhile career as an educator, and Penn GSE gave me the tools I needed to succeed."

— *Barbara Russo Bravo, CW'68, GED'69, Member, The William B. Castetter Circle*

Barbara Russo Bravo, CW'68, GED'69, spent three decades in education as a teacher and principal. She wants to support future Penn GSE students as they embark on their educational journeys. By leaving a gift through her estate, Barbara has helped form a lasting legacy of learning.



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To learn more about how you can join the Castetter Circle of legacy donors and make a difference for the future of education, please contact:

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Photo by Allison Dougherty

TIPS FROM *The Educator's Playbook:*

BRINGING GENDER CONSCIOUSNESS INTO THE CLASSROOM

Messages about gender roles, norms, and expectations surround us. Girls and women remain underrepresented in STEM fields and at the highest levels of leadership in multiple fields. In this societal context, how can educators prevent persistent biases from interfering with students' learning?

The new book *Teaching Girls: How Teachers and Parents Can Reach Their Brains and Hearts* by Penn GSE Professor Peter Kuriloff; Charlotte Jacobs, GR'17; and Shannon Andrus, GRD'13, encourages educators to support and engage all students in the classroom by acknowledging gender consciously. The book does not argue that girls' and boys' brains and learning styles are fundamentally different, but instead offers lessons and strategies that have been shown to work well with girls, along with a gender-conscious approach to help educators be inclusive of all students.

Here are three different ways educators can take up gender consciousness:

Don't pretend you are "gender blind."

No one is. You live in a gendered world, and gender biases, however implicit, might be shaping your practice. Research reveals that teachers often pay more attention to boys than to girls in the classroom, and girls often are rewarded more for their social contributions than for their academic accomplishments. Reflect upon your teaching practices by conducting a gender audit of your classroom, and consider inviting a colleague to join you. Consider these questions: What is the participation rate of students in your classrooms along gender lines? Where do students sit? What types of verbal and nonverbal feedback do you give them?

(continued on next page) →



Photos by Darryl W. Moran Photography

Create a lesson that acknowledges gender.

There is no such thing as a “gender-neutral” lesson. But a lesson that acknowledges gender can help students better navigate our world and overcome its gender-based roadblocks. Start by thinking about the messages your students often receive and experience around gender expectations and norms. Who is represented in your curriculum and how? Which figures are portrayed as leaders? Which figures are portrayed as helpers or supporters? When it comes to STEM subjects, what are the messages that different students receive according to their gender?

Know that gender involves more than gender.

Gender is one of many identifiers affecting your students’ experiences. Your students are also of various races, ethnicities, socioeconomic statuses, religions, and family configurations. Transgender students often have to negotiate the expectations and biases of others. The intersection of gender with other identifiers influences how students move throughout their worlds—how others interact with them, what opportunities they are given or not given, what they are encouraged to do or not to do. Many of these influences are based upon societal assumptions. Take the time to get to know your students—what their interests are, where they are confident and where they are not, and what they need to be supported in the classroom. ■

Want more advice for educators?

These tips are adapted from *The Educator’s Playbook*, a monthly Penn GSE newsletter that distills faculty research into useful advice for K–12 educators.

Visit www.gse.upenn.edu/news/subscribe to sign up.



PENN GSE LAUNCHES

THE EXTRAORDINARY IMPACT CAMPAIGN



At a celebration on April 18, 2018, alumni, board members, and friends gathered to launch *Extraordinary Impact: The Campaign for Penn GSE*. Held at the Barnes Foundation in Philadelphia, the event featured lifelong educator Dr. Jill Biden, former second lady of the United States; author and social entrepreneur Wes Moore, CEO of Robin Hood; Penn President Amy Gutmann; and Penn GSE Dean Pam Grossman. All four spoke about the life-changing power of education and the pivotal role of Penn GSE in shaping the future of learning. “I ask for your continued leadership and support as we chart our second century of making opportunity possible for children all across this world,” Dean Grossman said.

Photos by Brooke Slezak Photography





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EXTRAORDINARY IMPACT

THE CAMPAIGN FOR  PENN GSE

“Each day as we undertake the multifaceted task of shaping the future of education, your support makes it possible for the students, faculty, and staff of Penn GSE to rise to the challenges of our work.”

– Dean Pam Grossman

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