“The UCI School of Education is a true partner to our schools, engaging in meaningful research and evidence-based practices that advance our understanding of teaching and learning while promoting equity and opportunity for all students.”

— Al Mijares,
Superintendent, Orange County Department of Education
Redefining 21st-Century Education

The field of education is on the brink of an exciting new era fueled by data-driven, technological breakthroughs that are transforming both the ways we teach and how students learn. Faculty in the University of California, Irvine School of Education are at the forefront of developing innovative practices that will redefine K-12 and higher education in the 21st century. We aim to develop tools and techniques to better prepare all students, regardless of background, for success in a rapidly changing world.

The UCI School of Education, recognized as a leading educational school, is well positioned to expand educational opportunity by improving learning outcomes locally, nationally and globally. Our commitment is anchored in the knowledge that education benefits every facet of society, from national security to civic engagement, from job creation to reducing poverty. It is the foundation for success in life; without it, many doors to opportunity remain closed.

“We are developing a model for a 21st-century school of education and a model for improving education in society,” said Richard Arum, dean of the UCI School of Education. “Our faculty and students are pursuing
meaningful research, pioneering innovations in teaching and learning, and engaging our local communities to serve the public good.”

Orange County schools face an array of challenges — waves of school reform with uneven results, gaps in educational quality and persistent pockets of economic deprivation. More than half of Orange County’s 500,000 plus students live below the poverty level. In partnership with local schools, our faculty and doctoral students study what works in education and develop evidence-based methods to optimize learning for future generations.

Collaborative initiatives between researchers and practitioners are at the heart of educational advances. This commitment is exemplified in our partnership with the Samueli Academy, a STEM-focused, project-based charter high school in Santa Ana that offers college preparatory training to foster youth and other students in the community. Before the Samueli Academy even opened its doors, Deborah Vandell, the founding dean of the UCI School of Education, worked closely with administrators and founders to develop curricula and policies. Vandell and Dean Arum have both served on the school’s board of directors.

In addition to working one-on-one with individual schools, the School of Education is assembling a countywide network of partnership schools to share best practices and address common problems.

Beyond the K-12 classroom, faculty in the School of Education also work closely with colleagues at UCI to use the campus as a robust laboratory and demonstration site for improving undergraduate education in the United States and globally. UCI’s nationally recognized success serving undergraduate students and the education research expertise of our faculty create a unique opportunity to identify, articulate and disseminate a model for work in this area.

We invite you to support our bold vision. Together, we have the power to redefine education in the 21st century and train the leaders of tomorrow. Please consider investing in our key priorities:
Partnering with Local Schools for National Impact

**Teacher Academy** – Teachers throughout Southern California public and private schools will benefit from professional development programs, distinguished lectures and access to the latest educational research.

**Networked Improvement Community** – Practicing teachers, doctoral students and faculty researchers will work side by side to conduct studies and disseminate results that establish new best practices for curriculum design, assessment, instructional strategies and related innovations.

**Center for Educational Partnerships** – Recently merged with the School of Education, the Center will expand its programs for K-12, community college and transfer students to further enhance equity and access to quality education as a means to fulfilling the American Dream.

**Applied Research Center** – An integrated longitudinal data archive will be housed at UCI to track student progress from K-12, college and into the labor market. This new center will become the hub for research-based approaches to transforming education in California and beyond.
“Democracy has to be born anew every generation, and education is its midwife.” – John Dewey, 1916
“In the heart of culturally diverse Orange County and widely regarded for its first-generation student body, UCI is uniquely positioned to facilitate K-12 public education in cultivating human ingenuity and building the next generation of diverse innovators who fuel our economy.”

— Sandi Jackson,
Co-Founder, Samueli Academy
Chair, School of Education Campaign Advisors
gaining a *worldview*

**Establishing Global Partnerships in Education**

We are committed to producing knowledge that advances educational science and prepares youth for success in the global economy by establishing partnerships with top education schools in China, Mexico and South Korea.

These faculty exchanges, doctoral student visits and research collaborations will expand our global impact and enrich the educational experience for UCI students, in turn producing graduates who enter the workforce with an informed worldview.
promoting evidence-based models of student success

The Value of College

Skepticism over the value of college is becoming ubiquitous as the global economy is changing, student debt is rising, and an increasingly diverse student body is matriculating to campus every fall. Existing research into the question is outdated and requires new instruments to collect more modern, relevant data.

This fall, UCI, under the leadership of the School of Education and its dean, Richard Arum, is serving as a pilot site to study the undergraduate experience. The research team — which includes Michael Dennin, vice provost and dean of undergraduate education, and more than two dozen faculty from across the nation — will develop and implement ways to improve our understanding of the value of undergraduate educational experiences, and promote evidence-based models of student success.

The study, supported with a $1.1-million grant from The Andrew W. Mellon Foundation, will follow 1,050 UCI undergraduate students and collect a wide range of data. Everything from transcripts to online classroom behavior, living situations to students’ emotional states is being collected and considered. In one portion of the study, students will receive periodic text messages in which they’ll be asked what they’re doing, where they are, how they’re feeling, and their interest level in the activity.

It’s the academic equivalent of Amazon or Netflix mining customer information to pinpoint and better serve their needs, says Arum.

“There’s been a huge change in technology that makes it a lot easier to capture data, regardless of industry,” said Arum. “Companies are hungry for data, and use data to improve consumer experiences; we’ve seen this trend in healthcare, entertainment, and it’s time for it to come to higher
education. It’s possible to figure out what students are doing and make use of that data. Frankly, it’s irresponsible not to.”

A main goal of the study is not only to understand the student experience at UCI, but also to create tools that other universities can replicate to assess the undergraduate experience on their own campus.

UCI — recently designated a Hispanic-serving institution — is a perfect starting point to tackle issues that plague all universities because the student body looks more like the future of America,” Arum said. UCI also believes in a data-driven approach to current issues, and in the power of interdisciplinary research, science, and measurement.
“Our student body looks more like the future of America.”

Richard Arum,
Dean and Professor of the UCI School of Education
“We’re leading conversations on how to better serve undergraduate students, and how leadership can think of institutional improvements that are driven by data and measurement,” Arum said. “We’re uniquely positioned to do this work.”

Ideally, charting student activity and moods will produce data akin to what a smartwatch collects, enabling administrators to better design programs and perhaps even anticipate and prevent problems.

In particular, many schools are looking for ways to shore up their graduation rates. Across the U.S., roughly half of all students drop out or fail to get a degree within six years.

Even at UCI, where 88 percent of undergraduates earn a bachelor’s degree in that time frame, Arum sees room for improvement. “If you landed only 88 percent of your airplanes,” he says, “you wouldn’t be satisfied.”
Turning the Tide

In fall 2018, the School of Education partnered with six local schools to establish the Orange County Educational Advancement Network (OCEAN). Through these partnerships, a School of Education faculty member and a doctoral student are matched with a local school, and the partnership team works with school leadership to identify the site’s greatest needs and goals, and conduct research that will positively impact the school.

The schools then meet with one another to identify and address their common, complex problems. Orange County schools, alongside the School of Education, can then mobilize to implement a measured, trackable improvement plan that identifies and disseminates effective practices to affect multiple schools simultaneously. The resulting work is known as a Networked Improvement Community (NIC).

The School of Education and the community will grow OCEAN to 12 partnerships in 2019-20, and then to 18 in 2020-21. Every additional school added to the partnership exponentially increases the number of potential collaborations, which allows for schools to work together and improve educational outcomes. Each partner site is privately funded.

“Well-designed partnerships can provide formative, on-site research; instructional support for teachers; and longitudinal analysis of student performance,” said Richard Arum, dean and professor of the UCI School of Education. “OCEAN is one of many ways in which the School of Education is partnering with local schools to address specific needs, and to transform educational outcomes in Orange County and beyond.”

A unique feature of the NIC is that it can collect and iterate on data quickly. This is in contrast to some traditional academic research, where studies can take years to complete and results are shared only after the study is finished. With a NIC, schools can measure change and see improvement quickly, or see that something isn’t working and pivot.

“The goals for this network — developing innovations that improve pathways for underrepresented students — those are things that everyone should be happy to collaborate on, and to share and gain
from one another,” said William F. Podlich, the former CEO of PIMCO. Podlich funds three of the eight partnerships in OCEAN. “The UCI School of Education is uniquely situated to establish partnerships across the county, and aid those with the greatest need. This initiative should generate research and solutions that are of interest to not just Orange County, but the entire nation, and could be used as a model for similar networks across the country.”

“UCI’s School of Education, under the leadership of Dr. Richard Arum, is changing the landscape for public education in Orange County,” said Stacey Nicholas, a UCI trustee. Nicholas is funding a partnership with Marco Forster Middle School and Breakthrough San Juan Capistrano. “The data-driven research of OCEAN will shape new methods of teaching and learning, and will serve as a model for the rest of the nation. I am especially interested in the impact that OCEAN will have on traditionally underserved student populations. UCI and its partners are fully committed to innovating public education, and I couldn’t be more excited to support this innovative program.”
The partnerships, listed on the following page, include charter and non-charter schools, elementary and high schools, and are geographically spread across Orange County. The partnerships don’t only improve the learning experiences of the county’s diverse student body, but also instill in doctoral students the experience of conducting targeted scholarship that addresses concrete, pragmatic needs.

“Working with teachers and administrators is extremely meaningful and impactful — I’ve learned how the public-school system uses data and how UCI can help facilitate the development of research-driven practices,” said Chris Wegemer, a doctoral student who worked at Samueli Academy. “The process of establishing a research-practice partnership is complex, but it seems to be one of the most effective ways for data to inform practice. I am committed to social justice and applied research that targets pressing issues; going forward as a professor, I will be much more capable of partnering with schools and community members.”

“Improving the educational outcomes for students from underrepresented backgrounds requires a systemic, collaborative and timely solution and OCEAN is the vehicle to get there,” said Alex Serna, executive director of Breakthrough San Juan Capistrano, a member of OCEAN. “This is about our community, about the lives of so many and I am excited because the NIC is the path to a better future for countless students in Orange County and beyond.

“It takes a village, and this is it.”
Public Schools involved in OCEAN include:

El Sol Science and Arts Academy
Katella High School
Marco Forster Middle School/Breakthrough SJC
Samueli Academy
TLC Public Charter School
Unity Middle College High School
Valley High School/High School Inc.
Willard Intermediate School