



UCI Orange County Educational
Advancement Network

Annual Report

Fall 2021

U N I V E R S I T Y O F C A L I F O R N I A , I R V I N E



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WELCOME FROM DEAN RICHARD ARUM



In 2018, the UCI School of Education, in partnership with local K-12 schools and with the support of private donors, established the Orange County Educational Advancement Network (OCEAN). This community-facing initiative places School of Education faculty and graduate students at local K-12 schools and allows research topics to originate from, and reflect the needs of, the school sites. The network also facilitates connections and catalyzes partnerships among K-12 schools, so that the School of Education can help address and identify solutions to common needs occurring across the region.

OCEAN is creating a national model for how a school of education can partner with local schools to support and improve education.

In three short years, OCEAN has hosted dozens of individual research projects across its 12 partner school sites and received more than \$8 million in grant funding from the Bill & Melinda Gates Foundation, the Institute of Education Sciences, the National Science Foundation, the William T. Grant Foundation, and more.

This past year, OCEAN began its most ambitious effort to date – a county-wide project to improve support for foster and housing insecure youth. This project, supported by the Spencer Foundation, is the first opportunity in which OCEAN will be implementing a county-wide improvement initiative, and the findings will be invaluable to communities across the country. You can read more about this critical work on page 9.

For the past 18 months, K-12 schools have grappled with online and hybrid learning, and associated learning outcomes. OCEAN has enabled the School of Education – the No. 7 public school of education in the nation – to work closely with local schools to support teachers, staff, students, and families during the pandemic. Our findings, along with the measures taken to assist the community, are detailed throughout this booklet.

Throughout the pandemic, OCEAN doctoral students and faculty have partnered with K-12 schools in our community to provide intellectual energy and to co-design activities that bridge educational research and classroom practice. I encourage you to consider investing in efforts to improve education through transformative research initiatives like OCEAN. With your support, we can improve educational outcomes for Orange County youth and redefine the future of learning.

Sincerely,

A handwritten signature of Richard Arum in black ink.

Richard Arum
Dean and Professor
UCI School of Education

WELCOME FROM JUNE AHN, OCEAN DIRECTOR



The OCEAN initiative is entering an exciting fourth year, and I invite you to reflect with us as we celebrate the successes of OCEAN faculty, students, and community partners. In addition, we're proud to share the ways in which our initiative at UCI has made an impact on our local community and to national discussions about how universities can be more impactful to society.

We began this project with a seed of an idea to promote community-engaged research and deeper partnerships with our surrounding Orange County community. We also began with initial investment from generous local donors. We have grown this seed project into an initiative that has:

- Supported nearly 50 community-based research projects over four years
- Funded and trained more than 30 doctoral students in community-engaged research methods
- Generated more than \$8 million in external grants to support community research projects from funders such as the National Science Foundation, Institute of Education Sciences, New Schools Venture Fund, Spencer Foundation, William T. Grant Foundation, and the Gates Foundation

This upcoming 2021-22 academic year, we are projected to support nearly 25 doctoral students, who collectively will undertake a diverse array of community-engaged research projects. You can learn more about the various projects OCEAN has supported to date on page 16. Our doctoral training programs are becoming a model for universities across the nation. We recently were invited to present about the OCEAN model at the National Network of Education Research-Practice Partnerships.

We are also showing how our model of combining local donor support with world-class research can result in large-grant funded projects that can bring resources to our county. OCEAN has supported community-based research that ranges from designing urban, city spaces in Santa Ana to promote STEM learning, to organizing Orange County agencies to imagine how to better support foster and housing insecure youth. As noted earlier, we've been honored and recognized by external grant funders for our work.

The initial investment in community-engaged research by our network of donors and the UCI School of Education leadership is paying dividends. I thank you all for your continued support. I'm also excited for the future as we work to sustain and accelerate what is a unique model of conducting partnership-based research to positively impact Orange County and beyond.

A handwritten signature of June Ahn in black ink.

June Ahn
Faculty Director of OCEAN and Associate Professor
UCI School of Education

ABOUT OCEAN

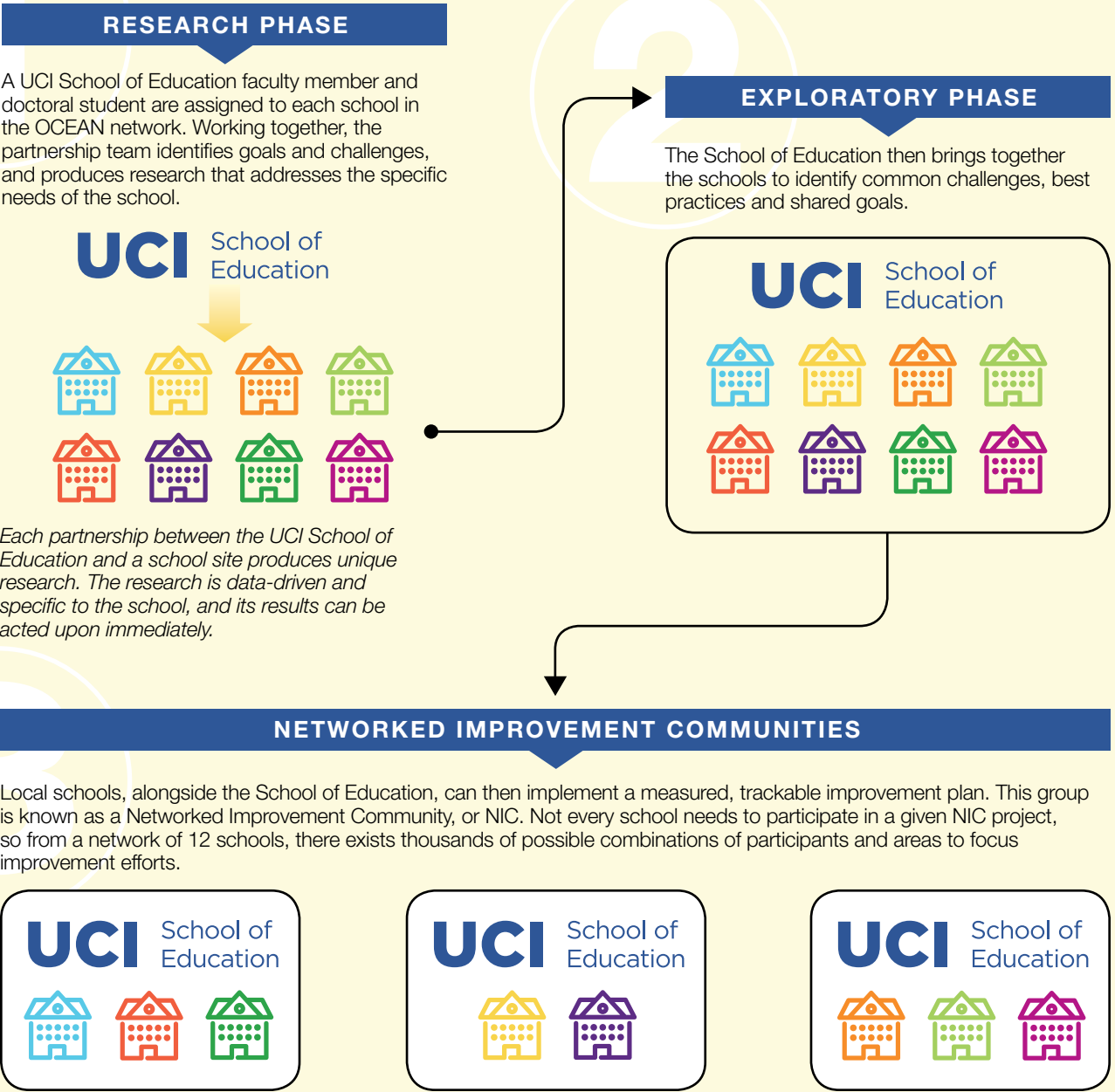
What is OCEAN?

OCEAN **catalyzes research-practice partnerships** (RPPs) by connecting School of Education doctoral students and faculty with K-12 public schools and community nonprofits throughout Orange County and the surrounding Southern California region. The partnerships study and co-design solutions to pressing regional challenges.

At each site, a School of Education faculty member and doctoral student work with partners to identify their greatest needs and goals, and in turn conduct research that will positively impact the local community.

Why OCEAN?

OCEAN is unique in a few ways. Targeted partnership research allows community partners to inform UCI faculty and doctoral students about what they want to focus on, making sure that research directly arises from community needs. Collaboration across the network of OCEAN partners also has potential to produce change at a systemic level. Our aspirations are to create the conditions for using research to guide improvement at both a micro and macro level.



PARTNERSHIP HIGHLIGHTS

TLC Public Charter School

Using Technology to Support Diverse Students with Disabilities

The OCEAN partnership between the UCI School of Education and TLC Public Charter School is generating novel research into ways that technology can foster an inclusive environment for culturally and linguistically diverse students with disabilities.

In the past, technology – be it an assistive technology, a hardware such as an iPad or Chromebook, or software such as YouTube or Zoom – was typically seen as a tool that could help foster independence for students with disabilities.

An OCEAN research team is shifting that focus by exploring how digital technologies can be collaboratively used to create not only independence, but “interdependence.” That is, instead of focusing solely on the 1:1 uses of digital technologies, the team is looking at how technology can be used in community by students, teachers, paraprofessionals, and families to promote inclusion.

“Something we learned through this research is how important the social connections, the social relations, and the social networks are for this model of inclusion,” said Professor Mark Warschauer, member of the OCEAN research team.

TLC was founded in 2018 by School of Education alumna Jessica Tunney (Ph.D. ‘16) as a model of inclusive education, community impact, and instructional innovation for equity. TLC is unlike any other school in Orange County, with diverse-by-design classrooms that bring together culturally and linguistically diverse students, gifted students, students who develop typically, and students with disabilities in a learning environment built for interest-based learning, the arts, and socio-emotional growth and care.

TLC has been a member of OCEAN since the network’s inception, and the partnership has grown organically over time. In the partnership’s first year, the team was focused on observation and understanding how TLC’s classrooms operated. In the second year, the focus shifted to technology. In this most recent year, the partnership’s third, the focus has been on supporting students in remote learning.

Moving forward, the OCEAN research team wants to focus on developing a model for inclusion and disseminate it to additional schools, districts, and other non-academic organizations interested in being more inclusive. It’s a mission that TLC and the School of Education have had since they first partnered with one another.

“We are looking to develop core practices and behaviors necessary to build an inclusive environment, and then working to support school districts and organizations in cultivating and replicating those,” said Yenda Prado, doctoral candidate and member of the OCEAN research team. “Additional funding would help develop a framework for inclusion we could bring into other districts, schools, and organizations.”

In 2021, Prado signed a contract with MIT Press to publish a book based on her ethnographic fieldwork researching and promoting inclusive education for marginalized students. Scheduled for release in early 2023, the publication - tentatively titled *Voices on the Margins: Inclusive Education at the Intersection of Language, Literacy, and Technology* - presents the first case study to focus on digital technologies’ potential to facilitate inclusion for linguistically and culturally diverse students with disabilities before, during, and after the pandemic.



“Participation in the OCEAN network is a key pathway for TLC to live out its mission of creating new knowledge to making real progress in the classroom through authentic inclusion and an enriched educational experience for every child – especially those who have been persistently marginalized and shut out for far, far too long.”

Jessica Tunney (Ph.D. ‘16),
Executive Director and Founding Principal, TLC Public Charter School

Breakthrough San Juan Capistrano and Marco Forster Middle School

A Multifaceted Approach to Improving School Climate

Since OCEAN’s founding in 2018, doctoral student Jennifer Renick and Professor Stephanie Reich have worked in a three-way partnership between Breakthrough San Juan Capistrano, Marco Forster Middle School, and the UCI School of Education. Breakthrough supports local, motivated students whose backgrounds are underrepresented in higher education by providing tuition-free academic programming and guidance from middle school through college graduation. The school recruits its students from nearby Marco Forster.

The work of the OCEAN research team in this partnership is multifaceted and varied. This past year, the team analyzed an intervention program that Marco Forster designed to support students with failing grades during virtual instruction. The analysis found that students who participated in the program had significantly higher growth in GPA over the quarter in which they participated when compared with students not participating in the program. School leadership is using these findings to inform interventions in the fall, including offering additional “zero period” Math and English classes.

The research team works closely with Marco Forster’s Positive Behavior Intervention and Support (PBIS) team to bolster efforts to improve school climate. In 2019, a school-wide survey administered by the OCEAN team revealed disparities in the sense of belonging between different grades and genders at the school. The results were used to inform new efforts to improve school climate and support student needs.

In August 2020, the California PBIS Coalition awarded the Marco Forster PBIS team a 2020 Community Cares Acknowledgement for the team’s “outstanding contribution of support and care during the unprecedented COVID-19 pandemic and resulting disruptions to school.”

“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, former executive director, Breakthrough SJC, and now chief program officer, Breakthrough Collaborative. “OCEAN is the path to a better future for countless students in Orange County and beyond.”

In March 2021, OCEAN launched the Marco Forster Middle School Youth Participatory Action Research (YPAR) Team, which is composed of a group of middle school students, Renick, and undergraduate research assistants. The group meets twice a week to learn about research so that the Marco Forster students can design and conduct their own research. The studies that Marco Forster students design and conduct focus on school climate issues of their choosing.

This past academic year, the students chose to focus on improving the school’s lunch – improving the quality of food, the quality of the lunchroom’s seating, and reducing food waste. Students shared their findings with school staff and collaborated with a nutrition specialist, who is planning to share the students’ research with other middle schools in the district.

“It is important for students to contribute meaningfully to their school community,” Reich said. “This YPAR project helped engage students and adults – from food service staff to the principal – in meaningful conversations that are continuing into the upcoming school year. It has also helped train the next generation of researchers to work collaboratively.”

“COVID-19 only increased the need for research in partnership with educational practitioners, but without the structure and support of OCEAN, this work wouldn’t have been possible,” Renick said. “The challenges that schools and nonprofits faced this past year limited the time they had to engage in such partnerships, but because of the previous years spent building relationships with the local community, we were able to both continue and expand our work in light of these unprecedented difficulties faced by students and families.”



“Because of the previous years we spent building relationships with the local community, we were able to both continue and expand our work despite unprecedented difficulties facing students and their families.”

Doctoral Candidate Jennifer Renick

Santa Ana Early Learning Initiative

Promoting STEM Learning in Public Spaces

OCEAN has expanded its network so that it not only includes K-12 partners and educational nonprofits, but community organizations and municipalities as well.

OCEAN is partnering with the Santa Ana Early Learning Initiative (SAELI) to co-design a series of playful learning installations in Santa Ana that encourage engagement in informal STEM learning. Led by Assistant Professor Andres Bustamante, the project - *Playful Learning Landscapes: Promoting Informal STEM Learning in Public Spaces* - is supported by a \$2.57 million grant from the National Science Foundation.

Roughly 80 percent of a child’s waking time is spent outside of a classroom, and playful learning landscapes are an opportunity to engage students during that time. Playful learning landscapes are modifications that transform everyday places into fun, engaging learning opportunities that extend education into the public realm. Playful learning landscapes seek to improve learning opportunities for all students, particularly those from low-income communities, by translating insights from research on child development and early education into playful learning activities in the spaces that families already spend time.

Bustamante is working with SAELI to ensure the Santa Ana installations reflect the goals, values, and cultural capital of the Latinx community, which is predominant in Santa Ana. SAELI is a group of hundreds of local parents, educators, non-profit organizations, and community leaders dedicated to providing enrichment opportunities to Santa Ana children ages 0-9.

“Our SAELI partners are leading the way on where project installations go and what they look like,” Bustamante said. “It’s been incredibly fun to hear their insights as we make sure that every installation is reflective of the community culture and history.”

Work on the project began in fall 2020. In the first year, the team held seven two-hour design sessions with roughly 40 SAELI parents. Sessions were held in Spanish by doctoral students Leiny Garcia and Vanessa Bermudez.



“One really exciting aspect of this project is how much enthusiasm there is from the city of Santa Ana to adopt this initiative. I believe our community partnerships are the biggest strength of the project.”

Assistant Professor Andres Bustamante

Parents told stories about their experiences in the spaces of their community and engaged in design activities to brainstorm and build design prototypes.

The UCI team, in turn, is now drawing out themes around culture, values and strengths from the stories that families told, and are using the design ideas as inspiration for a series of installations that will be fabricated and implemented in the coming year. Examples include a giant version of the game “Loteria” at the bus stop, and an interactive mural that displays local heroes and demonstrates the step-by-step process for drawing a proportional face.

Following the installations, Bustamante and the research team will collect several different levels of data. The team will observe how families interact with the installations and take note of their conversations. In an effort to boost employment and civic pride, the research team will also train community members to collect observational data on familial engagement at the installations. The research team will then conduct interviews with families to learn more about their attitudes toward the installations, and how they foster STEM identity and empower caregivers to be catalysts in their children’s education.

Lastly, Bustamante plans to track progress using a county-wide dataset collected by First 5 Orange County, which assesses school readiness for every child in the county when they enter kindergarten. He will examine readiness levels in neighborhoods that have project installations and compare to similar neighborhoods without the installation to explore community level impacts on child development.

Moving forward, Bustamante is working alongside the city of Santa Ana to include playful installations in future revitalizations or redesign efforts by the city. The city has several renovation projects underway and has invited Bustamante and his team to contribute ideas to increase the learning value of these spaces and integrate ideas that come from design sessions with SAELI parents.

COUNTY-WIDE INITIATIVES

In addition to providing support to partner schools for their specific, unique needs, OCEAN is able to implement Networked Improvement Communities (NICs) that impact multiple schools simultaneously. Two examples of such county-wide initiatives are seen here.

Reimagining Educational Equity and Opportunity (REEO) During the COVID-19 Pandemic

In July 2020, OCEAN began the REEO project, which addressed existing disparities in educational opportunities in low-income communities of color that have been exacerbated by COVID-19 and the transition to remote learning.

The research team began its work by surveying more than 400 teachers, parents, and school and district leaders to document the nuanced approaches that different communities were taking to best support students in Orange County. Questions focused on challenges and needs of educators and opportunities for learning and innovation, especially related to the use of technology in the wake of school closures. The data gleaned from this portion of the project informed four workgroups, all of which provided targeted support.

The first workgroup supported the mental health of students, families and teachers. The workgroup developed a social media platform to provide partners with accessible information, in multiple languages, that is designed to: connect families to mental health specialists/providers; curate activities proven to reduce anxiety and support mental health; and share resources that address the toll of racism on mental health.

The second workgroup examined best practices for remote/hybrid learning. The research team and K-12 teachers from three schools, serving predominantly low-income students of color, collectively identified challenges in distance learning, brainstormed and experimented ideas to address the issues, and refined and implemented the ideas into practice. Further analysis and implementation is ongoing.

The project also produced a workgroup that collaborated with district leadership to increase attendance and engagement for Spanish-speaking families. The team produced a three-part webinar that trained families on basic computing, internet use, school-based platforms, and strategies for supporting their child's remote learning.

The fourth and final workgroup, known as Community Education Fellows, matched UCI undergraduates from all disciplines with families in OCEAN partner schools. Undergraduates provided learning support in a variety of ways, including: 1-1 learning, small groups, and whole class situations. More than 125 K-12 students received support from the UCI undergraduates.

"During the pandemic, we have been able to match UCI students to lead virtual tutoring with families in need in our partner schools," said June Ahn, OCEAN director and associate professor, UCI School of Education. "It's a small, but meaningful way to help during this time of need, rather than focusing solely on research. That's a big part of being in a community together."

In total, more than a dozen faculty, graduate students and School of Education staff led REEO efforts, engaging thousands of students, teachers and families across Orange County. REEO responded to community needs during and throughout the COVID-19 pandemic, and the work continues today.



"As a faculty member in the UCI School of Education, it has been a pleasure to work closely with a group of dedicated teachers, discuss our shared values, and think creatively about instruction during the COVID-19 pandemic."

Professor Rossella Santagata

Supporting Foster and Housing Insecure Youth

In August 2020, the Spencer Foundation awarded OCEAN a two-year, \$400,000 grant to work with local schools and community organizations in supporting the implementation of systems to support foster and housing insecure youth across Orange County. The grant is being led by June Ahn, associate professor and OCEAN director, Richard Arum, School of Education dean and professor, and Anthony Saba, Samueli Academy executive director.

The project is a byproduct of thousands of hours of partnership research and hundreds of conversations with superintendents, principals, administrators, business and nonprofit leaders, all of whom collectively identified this as a critical need in the county.

There are an estimated 2,000 teenage foster youth in Orange County, and approximately 27,000 youth who experience housing insecurity per year. Housing insecurity, Ahn described, encompasses those who are experiencing long-term or short-term homelessness. It also includes families who are doubled or tripled up in a small apartment without much stability in their residency. Nationwide, roughly half of all foster youth complete high school, and less than three percent earn a college degree, according to the National Foster Youth Institute.

"The research we will conduct as a result of this grant is the exact type of work we envisioned when establishing OCEAN," Arum said. "With a strong network of school sites in place, and funding to study this important, under-researched area, we will improve the educational and living experiences of thousands of housing-insecure and foster youth in our community and identify research-based solutions for the larger field of education nationally."

Several additional organizations are partnering with the UCI School of Education and OCEAN for this project, including the Anaheim Union High School District, the Orange County Department of Education, Orange County Social Services Department, Orangewood Foundation, the Samueli Academy, Santa Ana Unified School District, and Scholarship Prep Public Schools.

Partners began meeting in January 2021. During these discussions, School of Education professors and graduate student researchers (GSRs) guided partners through a process that identified the key issues they face in supporting housing insecure and foster youth populations and the best practices that they enact in their local contexts. Through these meetings, along with field site visits, the School of Education built a rich qualitative corpus of data. Discussion of the salient issues remain ongoing, but researchers identified two needs that they will design interventions for during the 2021-22 academic year: coordination and communications between agencies and supporting students' social-emotional needs.

Graduate student researchers participating on the project include Lora Cawelti, Verenisse Ponce-Soria and Christopher Wegemer. Postdoctoral scholar Dr. Erica Van Steenis has aided in coordinating the project.

The success and performance of OCEAN is made possible from a perpetual and cyclical motion, Ahn explained. The network came into existence due to private support, which in turn helped the School of Education develop relationships with schools and identify issues of need. After showing what Ahn calls a "proof of concept," OCEAN has been able to secure more than \$8 million in grant funding for various partnership projects from external funders. After the grants are conducted, private support could once again lead the way toward future research into myriad areas.

"Our project is a continuous improvement initiative, which means we're constantly working together to pinpoint issues relevant to our county, and developing tweaks and solutions in our county," Ahn said. "That work does not just end after two years; ideally you'd want to keep funding the relationship and continuously improving and identifying the issues. There needs to be a sustained commitment to keep things moving."

"One of our goals with this partnership is to learn how we can best socially and emotionally support our students while setting up an academic environment that recognizes what they've gone through and supports them, with the ultimate goal of preparing them for life after high school. Kids all over this country really deserve for us to do this work."



Anthony Saba, Executive Director, Samueli Academy

STUDENT PROFILES

In addition to improving the learning experiences of Orange County’s diverse student body, OCEAN also instills in doctoral students the experience of conducting targeted research that addresses concrete, pragmatic needs. Doctoral students participating in OCEAN are imbued with “The UCI Way,” and begin careers in which they can direct and steer similar initiatives.

Socorro Cambero

Third-year doctoral student Socorro Cambero joined OCEAN in fall 2020. Her research, generously funded by the Podlich Family, took place at Magnolia High School, an Anaheim-based high school that largely serves marginalized students, including Latinx and Asian students, as well as students who qualify for free or reduced lunch.

Cambero worked with Magnolia science teachers to explore how culturally responsive teaching practices were employed during virtual learning. Through several classroom observations and interviews with teachers, Cambero identified how and why teachers sought out opportunities to connect subject content with activities that would enable students to utilize course content to catalyze change in their community. Cambero will present key findings to her partners, which can potentially inform what opportunities teachers pursue in the future to provide avenues for students to engage in course content in scientifically meaningful ways.

Cambero’s research interests include working with first-generation college students to explore where they accrue social and cultural capital, as well as working with future educators in science. Her larger mission is to

develop research rooted in the lived experiences of marginalized students. The opportunity to partner with Magnolia has deepened her connections to working with teachers and her research agenda.

In April, the National Science Foundation awarded Cambero a highly prestigious Graduate Research Fellowship. Cambero will use the fellowship to build off her OCEAN research and will work alongside future science teachers to explore how future teachers form their conceptualizations of scientifically meaningful learning experiences for marginalized youth.

Initial private support for OCEAN helped support and jumpstart Cambero’s research agenda, which played a pivotal role in her ability to receive the NSF fellowship. OCEAN provided Cambero a platform to connect with partners, who have informed her commitments to an equity-oriented and community-engaged research agenda that supports teachers on their professional pathways and provides consequential learning experiences for marginalized youth.



“Receiving financial support through private donors enabled me to engage with partnership research for the first time. I formed a partnership with ardent science teachers who are committed to their students’ learning, and whose insights and knowledge have deeply informed my research agenda as a graduate student.”

Socorro Cambero, Third-Year Doctoral Student

Ashlee Belgrave

Third-year doctoral student Ashlee Belgrave plays a dual role of project coordinator and graduate student researcher with the Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP), an OCEAN partner.

Alongside GEAR UP Director Rodolfo Acosta and a team of coordinators, Belgrave works with Compton Unified School District high school staff and counselors to provide multiple services, including tutoring and workshops on mental health and college readiness. She also helps advise students seeking academic assistance and supports the professional development of educators and counselors.

On the research side, Belgrave and the team are working to understand student experiences. Future research will examine the processes by which high school students are becoming prepared for undergraduate programs, and work to understand which GEAR UP programmatic components are, from the students’ perspective, most valuable. Belgrave, GEAR UP and the UCI People’s Coalition are organizing a program in which sophomores in Compton Unified will interview GEAR UP students across the nation to examine experiences with COVID-19.

The research intends to provide GEAR UP students with the opportunity to engage in research and data analysis.

Belgrave began working with OCEAN in fall 2019. Her involvement in the network has further enhanced her passion for community-engaged research, specifically in working with Latinx and Black youth. She has found great value in the OCEAN infrastructure, as it has helped her to connect with the community to do intentional research that incorporates the voices of educators and youth. As part of OCEAN, Belgrave has learned the terminology, theory, and research approaches most relevant to conducting community-engaged research, and she has had the opportunity to learn from senior students and faculty. She looks forward to learning from students and assisting in building programs that value their needs and preferences.



“Being a part of OCEAN has been an invaluable experience. The more I learn about research-practice partnerships, the more I understand that the UCI School of Education is one of the few institutions with the infrastructure to support necessary community work. As a research fellow, I have the opportunity to work with administrators, teachers, and other personnel to support students’ school experiences while building my own expertise.”

Ashlee Belgrave, Third-Year Doctoral Student

WORKING THROUGH THE PANDEMIC: LESSONS LEARNED

When schools across Orange County shifted to remote instruction for the 2020-21 academic year, OCEAN graduate student researchers (GSRs) doubled their efforts in supporting their school partner. The unique circumstances provided OCEAN GSRs with lessons they will carry with them throughout their professional careers.

“The pandemic made us reflect on what really matters in our lives, and what we prioritize for the youth in our schools. A group of us determined that above all, what mattered was supporting students’ mental health.”

Phebe Chew, Third-Year Doctoral Student, Valley High School & High School Inc.

“Schools and community organizations became support hubs and were tasked with reinventing themselves, providing connections to basic needs like housing and food, all while trying to continue serving students’ educational needs. I was inspired by the way each of our partners rolled with these challenges and considered the potential opportunities due to the pandemic, and how even in the midst of a crisis they were thinking about what they were learning and how to apply new lessons to support their regular practice.”

Lora Cawelti, Third-Year Doctoral Student, Samueli Academy

“Facilitating a community-engaged research (CER) project over Zoom was tricky, but our team had the additional challenge of making it fun. Thanks to the intentionality of the researchers and partners, however, we were able to ideate, collaborate, and play over Zoom – it was a good time! If we could make CER fun during a global pandemic, we are well prepared to engage in exciting activities this upcoming year in person.”

John Lopez, Second-Year Doctoral Student, Santa Ana Early Learning Initiative

“In the Community Education Fellows learning pod project, we are partnering with four OCEAN partner schools and nonprofits to match more than 125 students with UCI undergraduate fellows. These learning pods are designed to support students’ social emotional learning and facilitate small-group learning. So far, the learning pods we are facilitating are proving to be an innovative and useful solution for our partner organizations engaged in remote learning during the pandemic.”

Yenda Prado, Doctoral Candidate, TLC Public Charter School

“In the summer, we worked together to create a weekly needs assessment, so staff could easily know if students or families were facing challenges and then quickly respond. As virtual learning continues, we also developed a survey to better understand middle and high school students’ experiences of doing school from home, so that Breakthrough can tailor their programming based on students’ needs.”

Jennifer Renick, Doctoral Candidate, Marco Forster Middle School and Breakthrough SJC

“It was amazing to see school leaders from across the county come together to create innovative solutions to both new and longstanding problems. Through the REEO collaboration (see page 8), we identified a need to support parents who don’t speak English. We’re planning on organizing a series of workshops to help these parents support their children in online learning.”

Chris Wegemer ‘21, Samueli Academy

OCEAN FACULTY

OCEAN is supported by the School of Education’s world-renowned faculty. In addition to offering a wide range of expertise, faculty are trained and proficient in leading research-practice partnerships, mentoring graduate student researchers, and implementing strategic initiatives at K-12 schools. The following researchers work directly with School of Education graduate students and K-12 school sites to conduct targeted, school-specific research.



Richard Arum
Dean and Professor



June Ahn
Associate Professor
Director, OCEAN



Andres Bustamante
Assistant Professor



Shayan Doroudi
Assistant Professor



Elizabeth Peña
Professor
Associate Dean of Faculty
Development and Diversity



Stephanie Reich
Professor



Rossella Santagata
Professor



Erica Van Steenis
Postdoctoral Researcher



Adriana Villavicencio
Assistant Professor

WHY SUPPORT OCEAN?

OCEAN was established in 2018 due to the generous contributions of our philanthropic community. At inception, OCEAN supported six graduate student researchers at six unique school sites. As of August 2021, OCEAN is supporting more than a dozen graduate student researchers per year. By supporting OCEAN, you're helping to reimagine education based on the best research evidence and move forward with innovative solutions that improve learning and outcomes for Orange County students.

We invite you to invest in a strong future for youth through transformative research informing today's school leaders. Support our work, our partnerships and our people.

"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."

William F. Podlich, Former CEO, PIMCO; UCI Trustee and OCEAN Supporter

"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 for all students and building the next generation of diverse innovators who fuel our economy."

Sandi Jackson, Chair, Dean's Campaign Council and co-founder, Samueli Academy

"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. They are contributing to the fulfillment of our vision that Orange County students will lead the nation in college and career readiness and success."

Dr. Al Mijares, Orange County Superintendent of Schools

"UCI's School of Education is changing the landscape for public education in Orange County. 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."

Stacey Nicholas, UCI Trustee and OCEAN Supporter

GRANTS AND CONTRACTS

As a result of the three years of groundwork and contributions from private supporters, OCEAN has earned the interest of foundations, government agencies and districts who, as of August 2021, have awarded OCEAN more than \$8 million in grants and contracts.

Gates Foundation

June Ahn, associate professor and director of OCEAN, is partnering with the UCI Connected Learning Lab and out-of-school organizations across the country to study how local youth develop career pathways and occupational identities. Leveraging expertise in partnership research and improvement science, Ahn will work directly with youth to develop measures for the broader field of out-of-school learning that can help organizations better track youth experiences and support their career development.

NewSchools Venture Fund EF+Math Program

OCEAN is partnering with teachers and students in the Santa Ana Unified School District to co-design outdoor/ out-of-school learning spaces to promote mathematics learning and executive function. One example of this work is "Fraction-Ball," which transforms a typical basketball court into a learning opportunity. Professors Andres Bustamante and June Ahn, along with a team of faculty in the School of Education and graduate student researchers, are leading the project.

National Science Foundation

Professors Andres Bustamante and June Ahn are partnering with the city of Santa Ana to design learning opportunities into everyday city spaces such as bus stops, grocery stores, and playgrounds. This research partnership will study how to enhance early childhood STEM learning by leveraging the rich cultural assets of local Latinx communities and neighborhood spaces.

Institute of Education Sciences

June Ahn, associate professor and director of OCEAN, and Fernando Rodriguez, assistant professor of teaching, are leading "The Career Pathways in Learning, Education, Analytics and Data Science (CP-LEADS)" training grant. The grant aims to increase underrepresented undergraduate students' pathways into doctoral programs through rigorous and socially oriented research

opportunities. Sixty UCI undergraduates (15 annually for 4 years) will spend a full calendar year engaged in intensive and meaningful research activities with dedicated faculty mentors in the School of Education, work with community partners, and pursue an independent research project.

Newport-Mesa Unified School District

Professor Rossella Santagata and doctoral student Jiwon Lee are leading a research-practice partnership between OCEAN, the Orange County Department of Education and the Newport-Mesa Unified School District. The project, known as School-Wide Improvement in Mathematics (SWIM), aims to reduce inequalities in mathematics learning opportunities among minoritized elementary school children. It centers on adaptive teacher professional development and principal instructional leadership training. Through a focus on mathematics curriculum standards and professional collaboration, researchers and practitioners engage in improvement efforts tailored to address specific problems of practice at each site while also contributing theoretical and research knowledge to the field of teacher learning. SWIM began at Rea Elementary, and plans are to expand efforts to improve mathematics teaching and learning to all 22 NMUSD school sites through principals' instructional leadership support.

William T. Grant Foundation

June Ahn, associate professor and director of OCEAN, alongside UCLA Professor Kim Gomez, are leading "The Southern California Regional RPP Network for the Comparative Study of Research Use in Anti-Racist Partnerships." The grant will work to understand how Research Practice Partnerships (RPPs) can facilitate teachers, students, families, and administrators' URE from an anti-racist perspective to transform school climate, policies, and teaching and learning practices. The research team will observe and document how partnership work can be framed and utilized toward promoting anti-racist policies, routines, and practices in K-12 schools. The project includes three OCEAN partner schools and UCLA's Center for Community Schooling.

SUMMARY OF PROJECTS

OCEAN has engaged in nearly three dozen research projects in just three years. Working with K-12 schools across Orange County, the OCEAN network has produced tangible results in a variety of areas critical to supporting the county's diverse student population.

Adapting Project-Based Learning Strategies for Diverse Learners in a California Democracy School

OCEAN researchers explore how teachers at Katella High School adapt problem-based learning methods to promote student voice and civic engagement among all learners regardless of language or special education status.

Assessing Distance Learning in COVID-19 Times

Leaders from Marco Forster Middle School and OCEAN assessed students' experiences with distance learning.

Assessing the Impact of Remote Learning During COVID-19 on Student and Teacher Perceptions of School Climate

OCEAN and Katella High School leadership assessed the impact of remote learning on school climate using baseline data from the prior year.

Becoming a Critically Engaged Teaching Fellow

Leaders of Breakthrough SJC and OCEAN focused on understanding the ways in which Breakthrough SJC was helping develop Teaching Fellows' critical reflection.

Career Academies as a Driving Catalyst

Leaders from Valley High School and OCEAN assessed how Career Academies serve as a catalyst for college and career readiness, school attendance and job securement.

Community Education Fellows: An Initiative at UCI to Connect Student Mentors with Families and Schools

Leaders from El Sol Academy, TLC Charter School, Breakthrough SJC, and OCEAN matched families in need with UCI undergraduate students to form learning pods. The learning pods are designed to support students' social-emotional needs and facilitate small-group learning.

Concerted Cultivation of Spanish in Dual-Language Immersion Contexts

Leaders from El Sol Academy and OCEAN examined the ways teachers and parents cultivated students' Spanish language use across multiple contexts within a dual-language immersion program.

Creating a College-Going Culture

Leaders from the Center for Educational Partnerships, GEAR UP Compton, and OCEAN worked together to reduce the need for remedial education, increase access to rigorous curricula, and ultimately create a college-going culture within the community and target schools in Compton.

Designing and Researching Playful Learning Landscapes

Leaders in the Santa Ana Unified School District and OCEAN designed playful learning landscapes that reflect community partners' goals, values, and cultural capital of the Latinx community.

Developing Measures for Supporting Foster and Housing Insecure Youth

Leaders from Samueli Academy and OCEAN are leading research in the pursuit of supporting foster and housing insecure youth.

Developing Practical Measures of Occupational Identity with, for, and by Youth

OCEAN and School of Education leaders are partnering with national youth participatory action research organizations to directly involve youth in the development of practical measures for their occupational identities.

Emphasizing Student Voice and 21st Century Skills to Promote Positive School Climate in a California Democracy School

OCEAN and Katella High School leadership used a mixed-methods approach to identify best practices and areas for growth in student-centered curriculum, civic engagement, student safety and wellbeing, and peer leadership.

Evaluating STEM-Focused School Environment

Leaders from Samueli Academy and OCEAN designed and implemented strategic school environment surveys related to Samueli Academy's STEM-focused curriculum.

Evaluating the Impact of Academic Intervention Efforts during COVID-19

OCEAN researchers assisted Marco Forster Middle School staff with analysis of student academic data. In particular, researchers analyzed the impact of a new intervention program Marco Forster implemented to support students with failing grades in the context of virtual instruction. This analysis found that students who participated in the program had significantly higher growth in GPA over the quarter in which they participated when compared with students not participating in the program.

First in their Families: Enrichment Program for Latinx Middle School Students

Leaders of Breakthrough SJC and OCEAN conducted an evaluation of the summer enrichment program for Latinx middle school students who would be the first in their family to attend college.

Fractions in the Schoolyard

Leaders from Santa Ana Unified School District and OCEAN design and adapt playful learning opportunities centered around Fraction Ball, an outdoor game for advancing executive functioning and math skills in elementary and middle school students, based on the unique needs of each school in the district.

Identifying Humanizing Instruction in STEM Classrooms

Leaders from Magnolia High School, UCI CalTeach and OCEAN will identify teacher instruction practices that promote humanizing pedagogy in STEM classrooms.

Improving Learning in Reading, Math, & Social and Emotional Learning

Leaders from the Santa Ana Early Learning Initiative and OCEAN developed a community partnership of parents, caregivers, leaders, community agencies, and schools dedicated to improving early learning in reading, math, and social-emotional development for all children ages 0 to 9 in Santa Ana.

Inclusive Uses of Digital Technologies for Developmental and Linguistically Diverse Learners

Leaders from TLC Charter School and OCEAN seek to advance our understanding of how digital technologies can contribute to language and literacy development, agency, and inclusion for children with disabilities.

Leveraging Youth Participatory Action Research

Leaders of Breakthrough SJC and OCEAN utilized youth participatory action research amongst middle school students with a focus on teens' use of technology.

Navigating the Pandemic and Returning to School

OCEAN researchers are working closely with high school staff to train students on how to perform interview-based research to understand students' experiences with COVID-19 and how the transition back to campus is working to increase the amount of student voice included in conversation.

Playful Learning Landscapes Support Caregivers and Children

Leaders in the Santa Ana Unified School District and OCEAN explored how caregivers and their children experience PLL installations and examine the development and shifts in both caregiver-child STEM conversation and interaction, and caregiver attitudes about the importance of informal STEM learning and their beliefs about their role in facilitating STEM learning.

Promoting Best Practices for Dual-language Development

Leaders from El Sol Academy and OCEAN identify and promote best practices in the dual-language development of diverse learners.

Promoting Student-School Connectedness

Leaders from Willard Middle School and OCEAN explored student-adult connectedness through the use of restorative practices including an arts-integrated curriculum, teacher and student one-on-one mentoring, and student focus groups.

School-Wide Improvement in Mathematics

Leaders from Rea Elementary, Newport-Mesa Unified School District, Orange County Department of Education and OCEAN co-designed professional development activities for mathematics teachers by using analyzed teacher surveys and interviews.

Spencer Foundation Foster and Housing Insecure Youth Practitioner Networked Improvement Community

OCEAN is leading a county-wide project to improve the support for foster and housing insecure youth (see Page 9). Partners include the Orange County Department of Education, the OC Social Services Agency, the Orangewood Foundation, the Samueli Academy and other youth-serving partners.

Student-Centered, Interactive and Equitable Learning

Teachers from Orange County elementary schools and OCEAN designed learning activities in online and hybrid spaces that are student-centered, interactive, and equitable.

Supporting Families and Students During COVID-19

Leaders of Breakthrough SJC and OCEAN implemented evaluation tools and needs assessments to support families and students during COVID-19 in the areas of loneliness, depression, and material needs.

Supporting Latinx Alumni's College Persistence

Leaders from Samueli Academy and OCEAN supported the college persistence of alumni, primarily low-income, first-generation Latinx youth.

Teacher Perceptions of School Discipline

Leaders from Marco Forster Middle School and OCEAN collected teacher perceptions of school discipline to support the creation of consistent school-wide rules through the Positive Behavior Interventions and Supports (PBIS) team.

Technical Assistance During COVID-19

OCEAN researchers supported Breakthrough SJC with its switch to an online program application. This involved working with staff to redesign the application for an online format, creating the online application, managing responses, and sharing completed applications with Breakthrough staff.

Understanding Sense of School Belonging

Leaders from Marco Forster Middle School and OCEAN assessed school climate, including the creation and distribution of a school-wide survey to better understand staff and student perceptions of the school's strengths and areas for improvement, as well as their sense of school belonging.

Understanding STEM Readiness

OCEAN researchers, partnership personnel, and school staff are working together at a STEM school in the district to explore the messages students are receiving about STEM education, career pathways and its influence on their academic and life interests as well as the STEM messaging's connectedness to their communities.

Understanding the Student Experience of Online Learning

Leaders of Breakthrough SJC and OCEAN developed and distributed a survey to Breakthrough middle and high school students to better understand their experiences of attending school from home. This survey included questions about students' challenges in online classes. In turn, Breakthrough tailored its programming based on student needs.

YPAR to Improve School Climate

OCEAN researchers facilitated a youth participatory action research (YPAR) project with a group of middle school students. Participating students met twice a week to learn about research to design and conduct their own research study on a school climate issue of their choosing.

OUR SUPPORTERS

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- Spencer Foundation
- UCI Office of Inclusive Excellence
- William T. Grant Foundation

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- Anaheim Union High School District
- Breakthrough San Juan Capistrano
- Capistrano Unified School District
- Compton Unified School District
- High School Inc.
- Newport-Mesa Unified School District
- Orange County Department of Education
- Orange Unified School District
- Santa Ana Unified School District

For more information on ways to support OCEAN, please contact Jennifer Stameson, Executive Director of Development, UCI School of Education: jastames@uci.edu





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