SCALE-CA

Supporting Computing Access, Leadership and Equity in California

SCALE-CA is a Research-Practice Partnership (RPP) dedicated to building leadership capacity to scale and sustain equitable computer science education across the state of California. This partnership brings together 17 local education agencies (including public school districts and county offices of education) and educational researchers to understand how to support school leaders in implementing meaningful computing learning opportunities for students most underrepresented in the field (e.g., Black, Brown, Indigenous, low-income, and female students). The Research-Practice Partnership, named "SCALE-CA: Supporting Computing Access, Leadership and Equity in California" describes our collaboration between researchers and practitioners and the co-creation of tools, professional learning, and research to broaden participation in computing.

We summarize our experiences and findings into 5 essential elements of a healthy Research-Practice Partnership. These elements highlight RPP values and activities that others can use in their work to engage in robust research that has immediate and meaningful impacts on education practice. We will use the same acronym as the project title "**SCALE**" to describe the 5 elements of our healthy RPP which is explained more on the back of this handout: 1) **S**hared Leadership, 2) **C**ollaboration, 3) **A**pplication to Practice & Policy, 4) **L**earning is Ongoing, and 5) **E**quity-Focused.

Read the full paper: Flapan, J., Ryoo, J., Hadad, R., Mendoza, S. (2023) Supoorting Computing Access, Leadership, and Equity: 5 Elements of a Healthy Research-Practice Partnership, ICERI2023 Proceedings, pp. 6989-6997.

Special thanks to our RPP members and funders:

Learn more at:
centerx.gseis.ucla.edu/computer-science-equity-project/scale-ca

SHARED LEADERSHIP

The RPP met monthly online, and annually in person where partners formed trusting relationships, collaborated through problems of practice, and engaged in ongoing learning and curricular pathway development. Through a shared leadership approach between researchers and practitioners, this RPP ensures that traditional hierarchies of power and privilege are replaced with opportunities for co-construction of research questions, methodologies, and new knowledge for the field. Monthly meetings were facilitated by both researchers and practitioners, not elevating one expertise over another's, but rather, honoring the unique perspectives and experiences of both practitioners and researchers.

COLLABORATION

The RPP created the conditions for both researchers and practitioners to harness their expertise and experience toward shared goals through collaboration. One such collaborative effort involved the development of the CS Equity Guide and it's accompanying workshop for school leaders.To develop the CS Equity Workshop for School Leaders, a subgroup of the RPP met weekly for two months and used experiences from previous workshops and the feedback from the CS Equity Guide. The first workshop took place during the first Summer of CS in 2019, and had been repeated more than a dozen times since across the state and nationally. Practitioner partners from the RPP have taken the lead in facilitating the workshop, dividing up different sections based on their skill-set and experience.

APPLICATION TO PRACTICE & POLICY

Our RPP used Plan, Do, Study, Act (PDSA) cycles for continuous improvement practices focused on equity to encourage reflection on how our community of leaders was running administrator workshops for other leaders across the nation. The RPP's success at the school district level has provided evidence-based pilot programs that have shaped policy at the statewide level. In addition to influencing statewide budget planning for professional learning, the RPP works to inform key decision makers in high levels of government such as the legislature, as well as education leaders at the California Department of Education. In order to build their capacity to make evidence-based decisions about broadening participation in computing, our RPP collaboratively writes data-driven research and policy briefs to share with state policymakers.

LEARNING IS ON-GOING

Our RPP employed Plan, Do, Study, Act (PDSA) cycles as a means of embracing continuous learning. A key part of our RPP's health is ensuring that all members were learning together in a community of practice in ways that supported deeper conversations about equity, our collective work, and new related efforts in the field. These learning events also respected all members as valued and knowledgeable partners who could learn together as well as share from their own experiences in different locations. Finally, to ensure that learning was truly "ongoing" for our RPP, we regularly collected data regarding the administrator toolkit and workshop through PDSA cycles of iterative improvement in a Continuous Improvement approach.

EQUITY-FOCUSED

Initial findings suggest that employing Continuous Improvement methods focused specifically on advancing equitable leadership practices through a shared operational definition of equity had an impact on leadership practices and the larger RPP. More specifically, creating a shared definition of equity through an iterative process of reflecting on key equity issues throughout the past three years of a rapidly changing sociopolitical climate helped illuminate the importance of elevating a greater diversity of voices, experience, and understandings of equity both within the RPP and in the partnership's statewide efforts. This process began by inviting all partners to individually define equity across research and practice perspectives, then discussing their ideas with one another, and then amalgamating them into one definition.