Computational Thinking Equity Project (CTEP)

Strategy & Goals
CTEP seeks to strengthen Computational Thinking (CT) and build a pipeline to STEM careers for students in South Central Los Angeles by identifying the critical academic and support systems students need to acquire foundational Computer Science knowledge, skills, and competencies. We seek to achieve this by creating a vertical articulation model between Augustus F. Hawkins Critical Design and Gaming School (C:/DAGS) and John Muir Middle School (JMMS) through near-peer mentoring.

Background & Methodology
CTEP builds upon our previous project that followed 9th grade C:/DAGS students to identify the key supports necessary to build foundational knowledge, skills, and competencies associated with Computer Science (CS) as aligned with the Exploring Computer Science curriculum. This project proposes to generate impact for students in increasing their mathematical and CT skills, strengthen partnerships with key STEM industries and organizations, and continue building relationships with relevant community stakeholders. Finally, this project can inform district intervention policies and practices seeking to effectively close learning gaps; particularly gaps in mathematics for historically marginalized groups.

Anticipated Outcomes
We have developed strong partnerships between senior-level LAUSD administrators, C:/DAGS, JMMS, and UCLA. Our model for co-constructing CT development through teacher-centered pedagogy and near-peer mentoring can inform teachers’ instructional approaches to CT development.

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We are excited about the possibilities for building new partnerships in the community between students, families, educators, mentors, schools, industry partners, and UCLA. We are hopeful students will want to return to the program as college-age mentors due to their involvement in the program. We anticipate new and unique outcomes from C:/DAGS and JMMS, two school communities that will benefit significantly from stronger connections in South Los Angeles.

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