

Cogenerative Dialogues and Development of the Culturally Relevant Pedagogical Guidelines for Computational Thinking and Computer Science (CRPG-CSCT)

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Collaborative development of the CRPG-CSCT (aka, the Guide)

Why?

Increase the number of underrepresented high school students who enroll and persist in CS courses

To Address

Lack of gender, racial, and socioeconomic diversity in CS



The CHALLENGE... Ensure teacher and student engagement in the development of the Guide!

The APPROACH... Six day-long workshops held throughout the academic year.

The Team

- Three partners schools (rural, suburban, urban)
- Six students (two from each school)
- Three CS teachers (one from each school)
- Three non-CS teachers (one from each school).
- Three primary researchers
- Two independent consultants with expertise in curriculum design, technology, and teacher training
- Two university faculty members in CS
- Two undergraduate research assistants.

Cogenerative Dialogues



Preliminary Findings

- High levels of engagement from participants
- Opportunities to engage in authentic conversations regarding recruitment and retention problems in CS
- Development of tangible pedagogical approaches, examples, metaphors, and other strategies to address recruitment and retention of underrepresented students in CS
- Participants comprehending views from the other group's perspective in the classroom.
- Shared meaningful suggestions and strategies for future workshops and for the collective betterment of the group.

For Teachers:

- Opportunity to better understand students' school experiences and how these may affirm / deny aspects of their identity.
- Gained confidence in their ability to implement the Guide.

For Students:

- Participate comfortably, openly, and honestly.
- Felt valued and heard.
- Ideas and experiences were frequently affirmed.
- Learned from teachers about their struggles in keeping students engaged.

