

# Equity-focused Peer Mentoring for High School CS Teachers

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## ABSTRACT

There is a burgeoning population of new CS teachers who are looking for additional support in their first few years of teaching, particularly around equitable and inclusive pedagogy. At the same time, there are a sizable number of teachers with multiple years of CS teaching experience who are looking for growth opportunities without taking on new courses. To address these needs, we are designing an innovative, equity-focused peer mentorship program for high school CS teachers. Mentors and mentees work together to support the mentee in identifying and achieving goals aligned to three of the CSTA Standards for CS Teachers: equity and inclusion, instructional design, and classroom practice. Mentors are provided with training and participate in a monthly community of practice focused on effective mentoring. The poster will share findings from our first year of implementation as well as examples of the materials we developed to support mentors and mentees.

## CCS CONCEPTS

• **Social and professional topics** → **Computing education**.

## KEYWORDS

high school teachers, mentoring, equity, professional development

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## 1 BACKGROUND

While efforts such as CS10K have spurred many initiatives to prepare high school CS teachers, few teachers report opportunities to develop skill with instructional practices, collaborate with other teachers, or work with a mentor to support their growth [2]. Furthermore, many teachers, especially those new to CS, do not feel

confident implementing culturally relevant pedagogical strategies in their classrooms [3]. Marginalized communities are disproportionately impacted; they are more likely to have new CS teachers or teachers with less supports for professional learning [2]. Finding new ways to support and sustain K-12 CS teachers is key to more students learning CS equitably.

## 2 OVERVIEW

We are designing an innovative, equity-focused peer mentorship program to support high school teachers within their first 3 years of teaching CS. To broaden participation, we prioritize teachers who serve rural students or high concentrations of students from low-income families or minoritized students. Mentors and mentees work on identifying and achieving goals aligned to 3 of the CSTA Standards for CS Teachers [1]: equity and inclusion, instructional design, and classroom practice. Mentors receive training and participate in a monthly community of practice focused on effective mentoring [5]. The program also provides a variety of resources including: a self-reflection checklist [4], scenarios for confronting bias in CS, and documents to track the mentoring relationship.

## 3 CONTRIBUTIONS AND FUTURE WORK

Using a design-based research approach, our study asks: (a) What supports/structures facilitate quality and effective relationships between mentors and mentees? and (b) How does the program support mentees' and mentors' confidence, job satisfaction, commitment to teaching CS, pedagogical content knowledge, mentoring ability, and use of equitable and inclusive teaching practices? The poster will share findings from our first year of implementation with 24 educators across one state.

## REFERENCES

- [1] Computer Science Teachers Association. 2020. *Standards for Computer Science Teachers*. Technical Report. <https://csteachers.org/teacherstandards>
- [2] Eric R Banilower, P Sean Smith, Kristen A Malzahn, Courtney L Plumley, Evelyn M Gordon, and Meredith L Hayes. 2018. Report of the 2018 NSSME+. *Horizon Research, Inc.* (2018).
- [3] Sonia Koshy, Alexis Martin, Laura Hinton, Allison Scott, Bryan Twarek, and Kalisha Davis. 2021. *The Computer Science Teacher Landscape: Results of a Nationwide Teacher Survey*. Technical Report. Kapor Center and CSTA. <https://csteachers.org/landscape>
- [4] Vicky Sedgwick, Deborah Seehorn, Dan Blier, Joanne Barrett, and Annette Walter. [n. d.]. CS Teachers Self-Reflection Checklist. <https://csteachers.org/page/self-reflection-checklist>
- [5] Lois J Zachary. 2011. *The mentor's guide: Facilitating effective learning relationships*. John Wiley & Sons.

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