Lessons Learned from an Equity-Focused Peer Mentoring Program for High School CS Teachers

Bryan Twarek
bryan.twarek@csteachers.org
CSTA
Chicago, IL, USA

Aleata Hubbard Cheuoua
ahubbar@wested.org
WestEd
San Francisco, CA, USA

Ed Campos
ed.campos@csteachers.org
CSTA
Chicago, IL, USA

Amy Fetherston
fetheram@wauwatosa.k12.wi.us
CSTA Wisconsin Dairyland
Wauwatosa, WI, USA

Fernando Echeverria
fecheve@wested.org
WestEd
San Francisco, CA, USA

Linnea Logan
linnea.logan@wfbschools.com
CSTA Wisconsin Dairyland
Whitefish Bay, WI, USA

ABSTRACT

As the number of secondary CS teachers increases to meet the burgeoning course offerings in the U.S., teachers new to the discipline need additional supports beyond one-time workshops focused on particular curricula. To address this need, we implemented a year-long, equity-focused peer mentoring program with twenty-six teachers across one state. Participants met twice monthly to identify and work towards three goals related to the CSTA Standards for CS Teachers. Pilot data suggest that mentees increased in their teaching confidence but needed additional support to apply their learnings in their classrooms. We also identified several ways that our application process hampered our broadening participation goals by making it difficult for teachers working with rural, minoritized or low-income students to participate. In this poster, we will share lessons learned from our pilot and emerging findings from our second year of implementation.

1 OVERVIEW

Few secondary CS teachers have opportunities for professional learning beyond one-time, curriculum-focused workshops. Also, there has been a growing need for guidance in implementing inclusive CS pedagogy. In response, we piloted MENTORS in CS, a 1-on-1 peer mentorship program for high school teachers new to teaching CS. Mentees met twice per month with experienced CS teachers and worked towards goals aligned with the CSTA Standards for CS Teachers. Mentors also received training and participated in a community of practice focused on effective mentoring [3]. We provided participants with resources to structure their mentoring relationships (e.g., a self-reflection checklist [2]) and to maintain a focus on equitable CS teaching (e.g., scenarios to prompt discussion around confronting bias in CS).

2 METHODS AND RESULTS

Twenty-six teachers in one state participated in the pilot. We gathered data through surveys, interviews, and observations to investigate whether the program influenced mentees' CS teaching knowledge and practices. Mentees reported increased confidence in these areas and demonstrated a reflective stance [1] towards their teaching. Additional supports were needed to help them use their teaching knowledge in the classroom. Data also revealed the need to offer more informal exchanges for building a level of trust that allowed for open discussions about the mentees' goals.

We aimed to reach a large number of teachers working with rural, minoritized, or low-income students; students with the fewest CS learning opportunities in the state. Data uncovered several ways our application process hampered our broadening participation goals. First, we required applicants to indicate teaching assignments over the summer, but this excluded many teachers from one large district whose assignments were finalized in the first few weeks of the school year. Second, we prioritized applicants teaching the equity focused ECS and AP CSP courses, but later found this excluded many teachers who met all other requirements, districts that did not offer those curricula, and teachers using the courses under different names. Lastly, we excluded applicants completely new to teaching, but this overlooked teachers with relevant, informal teaching experiences. We will talk more about lessons learned from the pilot, how we addressed them, the structures and tools we use, and emerging findings from our second year of implementation.

REFERENCES

[1] Carol R Rodgers. 2002. Seeing student learning: Teacher change and the role of reflection. *Harvard educational review* 72, 2 (2002), 230.
[2] 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
[3] Lois J Zachary. 2011. *The mentor's guide: Facilitating effective learning relationships.* John Wiley & Sons.