Percival Matthews
Impact 2030
2020-21 update

The academic year 2020-2021 saw significant disruptions to my typical data collection procedures, which are usually heavily dependent upon face-to-face interactions. However, the massive and discontinuous changes wrought by COVID have had some positive effects on my research and the ways I plan to use my Impact 2030 award. I wrote in a recent editorial that, “If necessity is the mother of invention, then the pandemic has already provided one of the most fecund moments for innovation in modern history.” As result of the pandemic, I began to rethink the nature of the existing infrastructure that can help bridge the perceived gap between research practice and teaching practice. Two COVID-inspired changes to my research practices proved particularly informative to my thinking: a) my transition to online data collection at a large scale and b) the ability to forge and maintain connections among team members using videoconferencing platforms. These practices shed light on the potential of existing technology if we re-deploy them with a bit of imagination. Accordingly, I plan to use my Impact 2030 funds to explore the ways that my team can leverage online data collection and web-facilitated social interaction to support engagement of math education practitioners through the state in reviewing, implementing, and creating research.

As my thoughts on the issue developed, I submitted a proposal to the internal UW-Madison Research Forward competition to explore my conception of a Wisconsin Idea to Classroom Action Network (WICAN). The goal of this proposed network would be to use social media (i.e., Facebook and twitter supplemented by cloud-based resource pages) to create opportunities for co-inquiry and knowledge sharing, consistent with the principles undergirding efforts to promote more robust research practice partnerships. Although the proposal went unfunded in the Research Forward competition, I intend to use my Impact 2030 award to investigate a proof of concept for the project.

To summarize, the goal of the project is to build an accessible online professional learning community to support teachers as they explore ways to use and produce research in their classrooms. Such a networked community is needed because, broadly speaking, the US educational system is not set up to support teachers in processing or implementing research. Indeed, extant research on how teachers make sense of policy and research suggests it is best done together, in networks of teachers connected by a common focus. My hope is that by supporting networks of teachers and researchers who work together on common areas of inquiry, my team can help develop their dual capacities to create and engage with research and practice. We also hope ultimately to encourage and aid members of the practitioner network in developing and executing plans for carrying out teacher-led action research in mathematics and to help them disseminate their findings.