For Yue-Ting Siu, her doctoral research fulfills two of her passions: solving brain teasers and social justice for people with dual sensory impairments.

Siu, who is a teacher of students with visual impairments or TVI, is earning her doctorate in special education through the GSE’s joint doctoral program with San Francisco State University. Her dissertation looks at how leveraging communities of practice can support TVIs in improving their skills by changing the nature of their knowledge from just knowing how to use a device to improving their skills by changing the nature of their knowledge from just knowing how to use a device to improving their skills by changing the nature of their knowledge from just knowing how to use a device to improving their skills by changing the nature of their knowledge from just knowing how to use a device.

She’s partly motivated by the fact that fewer than 40% of TVIs across the nation use technology with their students, a number that has remained stagnant over the past decade even as technology has advanced exponentially.

“I’m really interested in why. What would it take to change that? How can we better train teachers so that they are less fearful of technology? That’s what I’m trying to work out,” Siu said, whose doctoral studies are funded by the National Leadership Consortium in Sensory Disabilities (NLCSD).

THE BRAIN TEASER
In her experience as a TVI, Siu recognized that because of the itinerant nature of the job, TVIs and other instructional assistants had few opportunities for professional development and lacked a community to support their work. While she’s working to ramp up support for TVIs in the field by creating communities of practice that share resources and establish social media groups (Twitter, blogs, Facebook groups, etc.), Siu also sees the need for more pre-service training.

“We want teachers comfortable enough to go online looking for those social media groups, getting used to using listservs, so that when they’re in the field, signing up for a teacher listserv isn’t a big deal because they’re already used to using it,” she said.

SOCIAL JUSTICE
Solving that brain teaser is a matter of social justice for Siu. When TVIs and instructional assistants aren’t using technology well, academic and employment outcomes for students can suffer.

“I have always thought it was really important for people to have access to their environment, regardless of their disability or place in life,” Siu said. “For people with disabilities, it’s not just equal access but it’s independent and timely accessed information.”

A prime example is when Siu began working with high school sophomore Keegan Sheehan, who was struggling with dictation software and a classroom aide was either at his side during class taking notes or dictation, or running off to photocopy materials.

Siu switched Sheehan to an iPad, taught him and his teachers how to use online file sharing, and found apps that helped him access digital versions of notes and homework. Finding the technology that fit Sheehan rather than visa versa allowed his classroom aide to sit at the back of the classroom and let Sheehan engage in his education more fully.

Sheehan flourished. He is now a freshman at Cal State East Bay majoring in communications.

“One thing that technology has done for me, it has made me more reliable on myself, and more independent in college. It’s a great feeling,” Sheehan said. “I had an instructional assistant for six years. It’s like a monkey off my back.”

Through her doctoral research in the GSE, Siu, who was also awarded a National Scholar award from the American Printing House for the Blind (APH), hopes to have more successful outcomes like Sheehan.

“I’m getting a really strong foundation of how to carry out high quality research so that when I go back and make a recommendation to my field of practitioners or assistive technology developers, I have evidence and I can say this is why,” she said.

For Yue-Ting Siu, her doctoral research fulfills two of her passions: solving brain teasers and social justice for people with dual sensory impairments. Siu, who is a teacher of students with visual impairments or TVI, is earning her doctorate in special education through the GSE’s joint doctoral program with San Francisco State University. Her dissertation looks at how leveraging communities of practice can support TVIs in improving their skills by changing the nature of their knowledge from just knowing how to use a device to improving their skills by changing the nature of their knowledge from just knowing how to use a device. Students with visual impairments require accessible instructional materials and differentiated instruction to meet learning needs that are impacted by vision loss. As classrooms evolve to include more digital materials and multimedia, technology affords these students more independent and timely access to classroom content. Teachers of students with visual impairments (TVIs) are responsible for addressing the specialized needs of learners who are blind and visually impaired, which include instruction in the use of technology. This area of instruction is crucial among the many other tasks of a TVI, because students who are proficient technology users have improved postsecondary and employment outcomes. However, a majority of TVIs remain unprepared to teach technology. Although challenges in technology adoption were similarly identified and largely overcome by general education classroom teachers, several barriers remain unmitigated for TVIs. This dissertation centers on the nature of this discrepancy, and aims to identify how challenges in itinerant teaching (the typical model of TVI work) implicate needs for professional development that must be differentiated from those of classroom teachers in order to affect teaching practice. The study adopts a mixed methods approach to evaluate the effectiveness of a virtual community of practice as a model for innovating knowledge gained in initial technology training, and for ongoing professional development.

Keywords: community of practice, visual impairments, technology training, professional development, itinerant teaching