Pre-service teachers’ use of technology: Exploring opportunities to amplify and reorganize students’ thinking through the creation of video lessons.

The demand for teachers to effectively promote remote learning has never been higher due to the outbreak of the COVID-19 pandemic. This report will present findings of a qualitative study investigating prospective teachers’ use of mathematical action technology as they created video lessons on iPads. The research design involved implementing an iPad project in a Technology for Secondary Mathematics Education course with two different cohorts of students. Data comprises their project outcomes with a follow-up survey, and it was analyzed using TPACK framework. In this talk, we focus on participants’ use of technological knowledge, in particular, through the categorization of cognitive technologies as ‘Reorganizer’ and ‘Amplifier’ (Pea, 1985, 1987). According to Pea, using technology as Reorganizer provides learners the opportunity to alter and expand the way of thinking in their approaches to solving the given problem. On the other hand, using technology as Amplifier involves delegating the tool to handle tedious work such as computations and graphing efficiently. The report will discuss how most participants remained at using technology as Amplifier and how to guide prospective teachers to implement technology as Reorganizer based on empirical data. (Received September 04, 2020)