

INVESTIGATING THE TECHNOLOGICAL PEDAGOGICAL CONTENT KNOWLEDGE: A CASE OF DERIVATIVE AT A POINT¹

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This paper emerged from our attempts to help pre-service mathematics teachers integrate technology into their instruction. We are convinced of the usefulness of the idea of technological pedagogical content knowledge (TPCK), which, we argue, provides a framework to diagnose pre-service teachers' difficulties and to identify the areas in need of development for a successful integration. We also argue that such diagnoses and identifications need to take the mathematical content into serious consideration, hence placing a strong emphasis on the content dimension of TPCK. These arguments are exemplified through the analysis of a pre-service mathematics teacher's microteachings with and without the use of technology in the context of teaching derivative at a point.

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