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Utility and usability as factors influencing teacher decisions about software integration.

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Summary: Given the importance of teacher in the implementation of computer technology in classrooms, the technology acceptance model and TPACK model were used to better understand the decision-making process teachers use in determining how, when, and where computer software is used in mathematics classrooms. Thirty-four (34) teachers implementing Geometer's Sketchpad and Fathom in algebra and geometry classrooms were observed and interviewed using the above models. The factors of perceived ease of use and perceived usefulness, and their contributing sub-factors, were used to elaborate on how teachers differed in their perceptions and actual use of these two software tools in different instructional contexts. The two primary themes that emerged were teachers' comfort level with using the software tools and how this interacted with their perceived ease of use, and their understanding of the software's capabilities and alignment with their curricular and teaching goals. This alignment became the over-riding factor driving perceived usefulness. Secondary factors influencing perceived usefulness included alignment with preferred pedagogical strategies and support from fellow teachers. This last factor probably also crossed over to perceptions of ease of use.

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