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Connecting social perspectives on mathematics teacher education in online environments.

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Summary: This article explores theoretical issues underpinning the design and use of online learning environments in mathematics teacher education. It considers the contribution of social theories of learning to conceptualising technology-mediated interaction, focusing specifically on community of practice models and the notion of digital mathematics performance. The article begins by introducing social perspectives on collaboration. Because of the diversity of theories within this broad research paradigm, the next section outlines networking strategies that have been proposed for connecting theoretical approaches. There follows a discussion of studies that illustrate the community of practice and performance-based approaches to research into online mathematics teacher education. The main purpose of the article is to show how these approaches could be connected by examining the same teaching and learning scenarios through different theoretical lenses. The final section identifies implications of this exploration for the design of online learning environments in mathematics teacher education to capitalise on the affordances of Web-based technologies.

Classification: B50 U59

Keywords: mathematics teacher education; technology; online learning; community of practice; performance; collaboration

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