

Finding hope in spreadsheets use in pre-service mathematics teacher education

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There is a need to develop a framework for the notion of hope in relation to spreadsheets use in a university classroom in pre-service mathematics teacher education. This framework is predicated on knowing differences between what is possible in a university and a school classroom, respectively. In each classroom there are different opportunities and constraints that come into play. The primary context of my work is a university classroom where I teach pre-service teachers to teach mathematics in intermediate and senior phases in public schools. My students' experience with school mathematics is one of disaffection. One of the high leverage activities I engage my students in is the use of spreadsheets to deepen their understanding of mathematics ideas in the school curriculum. For example, through spreadsheets use they explore connections between arithmetic and algebra. The framework I construct is about raising awareness of challenges associated with sustaining a continuum between my students' spreadsheets use and experience in a university and school classroom. One way to sustain the hope connected with spreadsheets use beyond a university classroom is a need to align and to strengthen university-school collaboration.