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K-8 teacher candidates' use of mathematical representation and the development of their pedagogical content knowledge as exhibited in their lesson planning.

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A study was carried out involving thirty-one K-8 teacher candidates enrolled in an elementary mathematics methods course to investigate and document their thinking as they plan for mathematics instruction. The teacher candidates submitted lesson plans at three intervals during a semester-long methods course which were coded based on the planned uses of mathematical representations. Analysis of the data revealed trends in the choices of representations. Recommendations are presented highlighting the potential benefits of incorporating the knowledge base on mathematical representations into a mathematics methods course and a discussion ensues on the development of these teacher candidates' pedagogical content knowledge through their choices of mathematical representations in their lesson planning.

Classification: D49