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Prospective primary mathematics teachers' learning from on-line discussions in a virtual video-based environment.

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Summary: The aim of this study was to investigate how participation and reification of ideas about mathematics teaching are constituted in on-line discussions when prospective primary mathematics teachers analysed video-cases about mathematics teaching. Prospective teachers enrolled in a mathematics methodology course participated for 4 weeks in two virtual learning environments that integrated the analysis of video-clips, on-line discussions and writing essays about key aspects of mathematics teaching. Three aspects were considered relevant to explain the prospective teachers' learning: the way in which the theoretical information was used to frame and to interpret the events from mathematics teaching; the characteristics of engagement with others participating in the on-line discussions and the role played by prospective teachers' beliefs. Possible reasons for the importance of these features include the specific questions posed in on-line discussions and the use of video-clips of mathematics teaching. These findings are considered useful in designing virtual learning environments and the kinds of tasks through which the understanding of mathematics teaching and learning-to-notice skills can be developed.

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