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Pre-service Teachers' Beliefs about Scientific Inquiry and Classroom Practices

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ABSTRACT This study investigates the pre-service teachers' beliefs about the nature of scientific inquiry and how these beliefs interact with their classroom practices during teaching practice. It also determines some of the conceptual ecological factors that facilitate or impede the translation of these beliefs into classroom practices. The participants are two student teachers who were studied during a three-week teaching practicum session. Data sources include interviews, lesson observations, and analysis of lesson plans and student files. The results suggest that while the pre-service teachers' beliefs about nature of scientific inquiry permeate classroom behavior and action, their behavior and actions are much more influenced by the 'school context factors' and their desires to get a credit from assessment. The school context factors found to influence behavior and actions include, availability of teaching and learning materials, nature of guidance and support from mentoring teachers, and the "quality" of learners. Recommendations for science teacher training, teaching practice supervision and research are raised.