

## **High School Chemistry Teachers' Scientific Epistemologies and Laboratory Instructional Practices**

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**ABSTRACT** This qualitative study investigated the translation of two High School Chemistry teachers' scientific epistemologies into laboratory work instructional practices. The teachers' epistemologies on selected aspects of nature of science (NOS) and nature of scientific inquiry (NOSI) were elicited through semi-structured interviewing. Their laboratory instructional practices were obtained through observation of laboratory work sessions and reflective interviews. The findings reveal that the manifestation of a teacher's scientific epistemologies into laboratory work instructional practice is complex, and governed by factors in the instructional environment as well as other beliefs embedded within the teacher's conceptual ecological system. It is argued that the translation of a teacher's beliefs into practice is a conscious activity during which the teacher weighs and balances cognitive and epistemic factors and makes judgmental decisions about the merits and demerits of instructional action. It is concluded that teachers put their scientific epistemologies into practice, but only to a small extent.