

ZMATH 2009e.00647

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Promoting issues-based STSE perspectives in science teacher education: Problems of identity and ideology.

Sci. Educ. (Dordrecht) 17, No. 8-9, 941-960 (2008).

Summary: Although science, technology, society and environment (STSE) education has gained considerable force in the past few years, it has made fewer strides in practice. We suggest that *science* teacher identity plays a role in the adoption of STSE perspectives. Simply put, issues-based STSE education challenges traditional images of a science teacher and science instructional ideologies. In this paper, we briefly describe the development of a multimedia documentary depicting issues-based STSE education in a teacher's class and its subsequent implementation with 64 secondary student-teachers at a large Canadian university. Specifically, we set out to explore: (1) science teacher candidates' responses to a case of issues-based STSE teaching, and (2) how science teacher identity intersects with the adoption of STSE perspectives. Findings reveal that although teacher candidates expressed confidence and motivation regarding teaching STSE, they also indicated decreased likelihood to teach these perspectives in their early years of teaching. Particular tensions or problems of practice consistently emerged that helped explain this paradox - including issues related to: control and autonomy; support and belonging; expertise and negotiating curriculum; politicization and action; and biases and ideological bents. We conclude our paper with a discussion regarding the lessons learned about STSE education, teacher identity and the role of multimedia case methods.

Classification: M59 M69 B50

Keywords: issues-based education; multimedia case methods; science teacher education; STSE (science, technology, society and environment) education

doi:10.1007/s11191-006-9060-8