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SAUDI ELEMENTARY SCHOOL SCIENCE TEACHERS' BELIEFS: TEACHING SCIENCE IN THE NEW MILLENNIUM

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ABSTRACT. This study explored Saudi elementary school science teachers' beliefs about the process of teaching and learning science. This involved the exploration of their views about the new Saudi science curriculum, which emphasizes critical thinking and problem solving. Comprehensive interviews were held in 8 schools with 4 male and 6 female—2 of whom were from private schools—science teachers. The interviews were analyzed to identify and assess common themes among their beliefs as well as associations between their beliefs and self-reported classroom practices. The findings revealed perceptual differences between teaching the old and the new science curricula and also that these science teachers were challenged by available class time, the student–teacher ratio, and the lack of laboratory space, equipment, and administrative support. It appears that the more interactive and group-oriented activities that formed the instructional foundation of the new curriculum have increased enjoyment for teaching science and led students to better comprehension of scientific concepts.

KEY WORDS: elementary school science, Saudi education, Saudi teachers, science teachers' beliefs

Introduction

Science education reform has been a worldwide concern for over a decade. Much has been reported about the first tier of reforms in North America, Europe, and Australia, but less is known about the second tier of reforms in African, Asian, Eastern European, and Middle Eastern countries. Since 2008, the Kingdom of Saudi Arabia has assigned top priority to the improvement of its educational infrastructure. The King Abdullah bin Abdulaziz Public Education Development Project is one example of the new initiatives to encourage school and curriculum reform. The Kingdom of Saudi Arabia Ministry of Education (KSA, 2012) prescribed an elementary curriculum that emphasizes problem-solving and critical-thinking approaches in teaching science. Similar science education reforms have occurred elsewhere in the Middle East; however, science teaching in most Arab states suffers from an overemphasis on teacher-centered approaches and memorization of content knowledge (United Nations Development Programme & KSA, 2003).

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