



Exploring Science Teachers' Affective States: Pedagogical Discontentment, Self-efficacy, Intentions to Reform, and Their Relationships

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Abstract Teachers play a key role in moving reform-based science education practices into the classroom. Based on research that emphasizes the importance of teachers' affective states, this study aimed to explore the constructs pedagogical discontentment, science teaching self-efficacy, intentions to reform, and their correlations. Also, it aimed to provide empirical evidence in light of a previously proposed theoretical model while focusing on an entirely new context in Middle East. Data were collected in Saudi Arabia with a total of randomly selected 994 science teachers, 656 of whom were females and 338 were males. To collect the data, the Arabic versions of the Science Teachers' Pedagogical Discontentment scale, the Science Teaching Efficacy Beliefs Instrument and the Intentions to Reform Science Teaching scale were developed. For assuring the validity of the instruments in a non-Western context, rigorous cross-cultural validations procedures were followed. Factor analyses were conducted for construct validation and descriptive statistical analyses were performed including frequency distributions and normality checks. Univariate analyses of variance were run to explore statistically significant differences between groups of teachers. Cross-tabulation and correlation analyses were conducted to explore relationships. The findings suggest effect of teacher characteristics such as age and professional development program attendance on the affective states. The results demonstrate that teachers who attended a relatively higher number of programs had lower level of intentions to reform raising issues regarding the conduct and outcomes of professional development. Some of the

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