Developing a Tool to Measure the Self-Efficacy of Science Teachers in the Kingdom of Bahrain In View of the Science Teaching Standards

A Thesis Submitted in Partial Fulfillment of the Requirements for the Master's Degree in Educational Measurement and Evaluation

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KINGDOM OF BAHRAIN
March/ 2015
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Abstract

The purpose of study was to develop a tool for measuring the self-efficacy of science teachers in elementary schools of the Kingdom of Bahrain based on the Science Teaching Standards, and to investigate the relationship between teachers' ratings of their teaching self-efficacy and some variables of interest.

A tool of 30 items was developed and validated for measuring four dimensions of self-efficacy of the science teacher, which were: Planning classroom teaching; implementation and assessment of teaching; scientific inquiry and problem solving; and classroom management.

The developed tool was then administered to 229 randomly selected teachers in elementary schools of Bahrain, and its psychometric properties were adequately investigated. As a result, high validity and reliability indices were obtained, where reliability value for the whole measure was .94, which indicates the applicability of the developed tool to the teaching and learning settings in the elementary school.

Moreover, the study revealed statistically significant differences in the mean teachers' rating of their teaching self-efficacy that can be attributed to gender, in favor of females. No statistically significant differences, however, were found in the mean teachers' rating of their self-efficacy that can be attributed to the level of scientific qualification, and the teacher's professional experience.

On the basis of the results, the utilization of the developed tool to enhance the classroom performance of science teachers in the elementary schools is recommended. The findings also serve a profound basis for designing training programs for science teachers in teaching based on the teaching self-efficacy.

Key Words: Self-efficacy, Science Teaching Standards, Classroom Teaching, Science Teacher, Elementary Education, Kingdom of Bahrain.