

Physical Science Teachers' Self-efficacy Beliefs on Conducting Laboratory Experiments

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ABSTRACT This non-experimental exploratory quantitative study examined secondary school Physical Science teachers' self-efficacy beliefs in conducting selected key experiments. The respondents were 190 Physical Science teachers (males = 54.6%, teaching experience ranging from 1 to more than 30 years) from the central province of South Africa. They completed a science teaching efficacy belief scale and a self-rating scale on how confident they are in conducting the selected experiments. Data was analyzed for rank-order in different outlined experiments for Grade 10 to 12 as prescribed by the Curriculum and Assessment Policy Statement (CAPS) of the Physical Sciences. The influence of demographic factors on confidence to conduct practical work and self-efficacy beliefs was also established. Findings suggest that the teachers' confidence to perform experiments was higher for Physics than for Chemistry, and that self-efficacy to perform experiments was influenced by demographic factors, mostly for Chemistry experiments rather than for Physics experiments.