

# PHYSICAL AND VIRTUAL EXPERIMENTS IN SCIENCE EDUCATION: ATTITUDES AND INTENTIONS OF ISRAELI PROSPECTIVE SCIENCE TEACHERS

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*The success of a learning method or a new education approach is largely dependent on the attitudes of those who implement this approach especially teachers. The present study examined (a) the attitudes of prospective sciences pre service teachers about the role of the physical experiments compared to virtual experiments (b) the impact of their training on their attitudes and beliefs about using physical and virtual experiments (c) whether their attitudes have an effect on their future intentions to use physical or virtual experiments. For this purpose a special questionnaire was composed. The questionnaire was administered anonymously to first, second and third year prospective science teachers. The questionnaire included personal characteristics, previous experience using physical and virtual experiments, attitudes toward physical experiments vs. virtual experiments, personal preparedness for future physical and virtual experiments and the plan for future use for each way.*

*The findings show that training does influence their attitudes. Their attitudes towards the physical experiments are significantly more positive than towards virtual experiments. The findings also show a high level of personal preparedness to teach by physical and virtual experiment, but the future intent to use physical experiment is significantly higher than virtual experiment.*