

STUDENTS' KNOWLEDGE OF THE NATURE OF SCIENCE, EPISTEMOLOGICAL BELIEFS, APPROACHES TO STUDYING, AND ACADEMIC PERFORMANCE

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ABSTRACT

Students' knowledge of the nature of science is an important determinant of their success at university and of their satisfaction with their chosen discipline of study. Epistemological beliefs are also likely to determine the approach taken to studying and to inform students' understanding of the nature of science. Students (n=214) studying an introductory unit of psychology at an Australian university completed a survey comprising Hofer's discipline-focussed epistemological beliefs questionnaire, the authors' science knowledge and attitudes questionnaire, and the latest revision of the two-factor study process questionnaire. The factor structure of both the discipline focussed epistemological beliefs questionnaire and the science knowledge and attitudes questionnaire deviated from previous analyses. Despite this, subscales both of these instruments were associated with various measures of academic success. Possible mechanisms for these relations are discussed, along with recommendations for educational development.

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