THE AEQ-PhysPrac: A TOOL TO MEASURE STUDENTS' EMOTIONAL ENGAGEMENT WITH PHYSICS PRACTICALS

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BACKGROUND
Students' emotional engagement with Physics is under researched. No one has yet adapted the Achievement Emotions Questionnaire (AEQ) to first year physics undergraduate practicals.

AIMS
The aim of our research is to adapt and validate the AEQ in Physics practicals context and measure students' emotions for two experiments.

DESCRIPTION OF INTERVENTION
The emotions measured for the standard control practical are compared with the emotions generated by the intervention practical with colour and historical aspects included in the text.

DESIGN AND METHODS
Descriptive statistics and Confirmatory Factor Analysis (CFA) were conducted with a sample of 320 students at the University of Sydney, which confirm the reliability and internal validity of the adapted AEQ (AEQ-PhysPrac).

RESULTS
The acceptable goodness-of-fit indexes validate the six interrelated factors in a multi-dimensional model of the AEQ-PhysPrac. Furthermore, as per the model that we are following, the results show that the emotions are differentiated and discrete.

CONCLUSIONS
The AEQ-PhysPrac is found to be a reliable and valid tool. Emotions can be probed separately, and can be compared across treatments. The differences found in emotions between the control and intervention indicated that the AEQ-PhysPrac can be useful in monitoring emotions in physics.

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