
WHAT MAKES YOU SAY THAT?

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ABSTRACT

This study was undertaken during the high school outreach program, Kickstart Physics, where a total of 640 students from 57 schools across New South Wales in 2017 and 2018 attended a, excursion to the University of Sydney 2nd year Physics teaching laboratory in order to learn through investigation, concepts relevant to their syllabus.

Here, we create an experiential learning program where High School students manipulate a syllabus related investigation. Surveyed students reported on the helpfulness of a presented concept, and then asked “What made you say that?” The responses were iteratively categorised and verified with members of The Sydney University Physics Education Research (SUPER) Group.

The results we present support our hypothesis that students find the investigations helpful and their responses indicate they learn by seeing and doing the investigation. Additionally, we find that specific inquiry skills can be helpful to student if presented in ways so as to maximise the understanding of those. These results point to the idea that students get a multitude of lessons and skills from each inquiry investigation which may help the research team to better design high school inquiry investigations.

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