Contribution ID: **84** Type: **Oral Presentation**

The case for using diagrams to navigate between multiple representations in physics in order to improve conceptual understanding

Wednesday, 5 July 2023 10:00 (20 minutes)

Through an interpretation of Greeno's model of the domains of problem-solving and the application of the theory of cognitive load, this paper shows why linking representations through a model aids understanding. The use of a drawing can help physics students to translate more easily between the abstract, concrete and symbolic representations of a physics problem. Physics teachers may find that an awareness of these theoretical underpinnings and their importance in assisting movement between representations informs the way in which they scaffold learning activities.

Apply to be considered for a student ; award (Yes / No)?

No

Level for award;(Hons, MSc, PhD, N/A)?

N/A

Primary authors: Mrs COBBING, Kate (Rhodes University); Mrs SEWRY, Joyce (Rhodes University); WILLIAMS, Jennifer (Rhodes University)

Presenter: WILLIAMS, Jennifer (Rhodes University)

Session Classification: Physics for Development, Education and Outreach

Track Classification: Track E - Physics for Development, Education and Outreach