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New ways of thinking about university physics teaching: A discussion of discursive representations using South African examples

Thursday, 10 July 2014 09:00 (1 hour)

Abstract content (Max 300 words) http://events.saip.org.za/getFile.py?target=_blank **Formatting & Special chars**

Over the past two to three decades it has been convincingly shown that many of the learning challenges faced by physics students are rooted in coming to understand and work with the specialised forms of communication that physics uses. This communication is made up of discursive representational forms such as written and spoken language, mathematics, graphs, gestures, sketches, diagrams, pictures, schemata, and so on. From such a viewpoint, the teaching and learning of physics becomes inseparable from these representations and their intended disciplinary affordances. Thus, they ought to take on special significance in our educational practices. In the face of the recent South African Council on Higher Education and the South African Institute of Physics Review of Undergraduate Physics Education it seems relevant to ask if they do? Three recent studies that include selected South African university-physics education contexts will be used to discuss this issue.

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

No

Level for award (Hons, MSc, PhD)?

N/A

Would you like to submit a short paper for the Conference Proceedings (Yes / No)?

Yes

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