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## Instructional Design Principles applied to Physics laboratory and tutorial courses

*Wednesday, 13 July 2011 14:30 (15 minutes)*

This study examines the effect on the learning experiences of students of changes to the running of laboratory and tutorial sessions of the first year auxiliary physics course at the University of the Witwatersrand, between 2001 and 2010. This research is underpinned by the principles of indirect interactive instructional skills and experiential learning. Two concerns drove this study: the first being a mismatch between the marks awarded to students for their laboratory reports, and their subsequent performance in formal practical tests. The second was the students' poor engagement – and hence performance in problem solving - during tutorial sessions. Several possible contributing factors were identified and changes were implemented in an attempt to improve the learning experienced by the students. Three sources of data suggest that the changes have had a positive effect on the learning of physics by the students in this course.

**Level (Hons, MSc, &nbsp; PhD, other)?**

Other

**Consider for a student &nbsp; award (Yes / No)?**

No

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

Yes

**Primary author:** Dr NAIDOO, Deena (School of Physics, University of the Witwatersrand)

**Co-author:** Mr CLERK, Douglas (University of the Witwatersrand)

**Presenter:** Dr NAIDOO, Deena (School of Physics, University of the Witwatersrand)

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