



Contribution ID: 268

Type: Oral Presentation

The problem of motivation: what students want, what students need, and what works well within a Physics context.

Wednesday, 11 July 2012 09:00 (20 minutes)

Abstract content
 (Max 300 words)

A small survey was conducted with 60 first-year students, where they were asked a few simple questions concerning the Physics course they were currently busy with. The questions included the following: (a) Do you find physics difficult? (b) Do you often do homework? (c) What more can the lecturer do to facilitate learning?

The results show that there is a definite link between questions (a) and (b): students who find the physics course difficult, rarely do homework. In fact, the majority of students indicate they do not do homework. This is nothing new; it is a problem experienced by lecturers and teachers worldwide.

Yet a recurring suggestion that appears in answering question (c) should cause some concern – many students indicated that they would appreciate it if the lecturer was to check whether homework is done on a regular basis, to motivate them to do their part.

This seems very positive feedback at first glance, but this suggestion should be shunned: students, specifically at first-year level, should be aware that it is their own responsibility to do the work that is expected of them. If they are so dependent on the lecturer, truly effective learning cannot take place. Effective learning, which implies that they must be able to apply to the knowledge they obtain, only really takes place when students work with minimal assistance from the lecturer: where the lecturer simply facilitates and guides, to encourage the students to discover for themselves. Students truly learn when they make a problem their own. This is the core of the problem: how to motivate students to do this, and how this can be done effectively within Physics; a subject which is so closely linked with reality that it should not be as much of a challenge as many believe it to be.

This is because any sort of link with a real-life challenge can encourage creative thinking in students, which is very much linked to learning. In this talk, we will look at one or two examples from the classroom that has met with reasonable success.

At the very least, de-motivation of the students should be avoided, and more instances from the classroom are used as examples of how this can be done.

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

Yes

Main supervisor (name and email)
and his / her institution

Dr C Moji, Email: nthobane.moji@up.ac.za, University of Pretoria

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

No

Primary author: Mr VAANDRAGER, Paul (University of Pretoria)

Presenter: Mr VAANDRAGER, Paul (University of Pretoria)

Session Classification: Education

Track Classification: Track E - Physics Education