

Online Team Investigations in Science (OTIS)

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The Open University

Online team investigations

Astronomy / Planetary Science

S382 – PIRATE robotic telescope
S382 – SDSS telescope data
S818 – Mars rover simulation

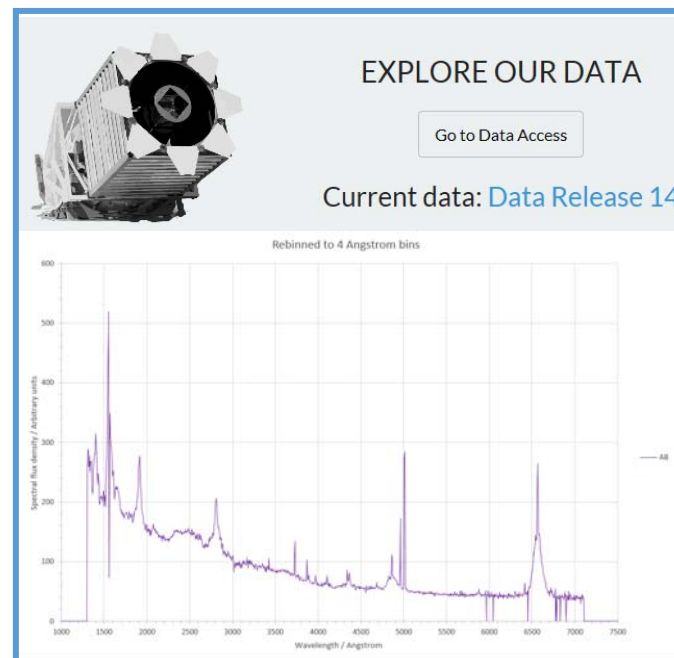
Features

- Advanced undergraduate / taught postgraduate
- Team working projects
- Use synchronous communication tools (as well as asynchronous)
- Varying models of assessment

Why this study?

Anecdotally, these team working investigations seem to be enjoyable and effective.

We want a more scholarly analysis so we can understand these teaching activities in depth.



Aims

By taking a comparative approach, we will investigate the factors that may be important in determining the effectiveness of such activities.

The areas for investigation are:

- Pedagogic design
- Use of online communication tools
- Student engagement and ownership of task
- Peer-learning in a distance environment
- Assessment strategies
- Group dynamics and conflict resolution in an online setting

Methods

Two approaches:

1. synoptic analysis of online communications (forums, wiki, Adobe Connect)
2. in-depth interviews with a sample of students

The synoptic approach will allow us to analyse trends of behaviour and identify factors and themes that require deeper study. The interviews will probe student perceptions and will allow in-depth questioning: this will be especially useful for eliciting views that students are unlikely to share in the team setting.

Application

- A deeper understanding of team working investigations is important for the development of similar teaching tasks across STEM, but also more generally across the University.
- The findings of the studies will be a valuable contribution to the professional practice of staff that are planning, designing or running similar activities.
- This study will be of interest to the wider HE community in terms of its analysis of student engagement, and application to employability in an increasingly online world.
- We also anticipate that the project should have higher-level implications for the University's approach to collaborative online learning.

