Revamping Physics Induction provision at Durham University through the Introduction of Team Project Work

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Induction to University is a key part of welcoming students and ensuring that they undergo a successful transition to University life. As far back as 2009, Evans et al reported that for domestic students, the transition to university can be exciting, unfamiliar and challenging [1]. Indeed, in a 2014 report on Induction, the then Higher Education Academy reported that better induction activity will lead to students more likely remaining at an institution until graduation, having the knowledge and attitudes to undertake their studies [2].

In 2013 Durham University developed some Induction Principles when the Induction period was extended from three days to one week [3]. These state that Induction must cover the full breadth of Student Experience, including providing an academic programme to address the skills a student requires to read for a degree in their chosen discipline. Department induction at Durham should therefore introduce students to the community of practice, explain how their degree programme works, allow students to interact with one another, and encourage active participation.

During 2017, Durham Physics department began to investigate a possible new introductory activity to complement what was previously offered, and in part inspired by work undertaken at the University of Liverpool [4]. In 2009, Liverpool University introduced an Undergraduate Physics Olympics in their Welcome Week, followed by a Year 1 Project in the first week of semester 1. Durham’s motivation to introduce a new physics-based activity was fourfold:

• to allow our students to get to know their peers better;
• to establish a realistic and balanced workload expectation;
• to provide a compelling Physics experience;
• to allow students to reflect on familiar foundational material, and show that further study of this is, in fact, essential.

As Durham Physics courses are also taken by Natural Science students, introducing a week-long project at the start of term was not feasible. Instead, it was determined to change the structure of Physics Induction, to introduce a project day for Single Honours’ Physics students. This was to be fun, would get students enthused about discussing physics with their peers, and enhance the department’s initial welcome as students commenced their transition into University life.

From induction period 2018, the previously given academic practice talks were scheduled to be completed by the Thursday setting aside the Friday for group work. Physics students were pre-allocated to groups, and undertook projects ranging from “Mission to Mars” to “The Greenhouse effect.” Overall, the experience of both staff supervising and students who completed the projects was very positive: students particularly commenting on the enjoyment of working as team and getting to know others. Following further refinements, the programme was again successfully in 2019.

[3] Durham University, Principles for student Induction