Easing the Transition from Further to Higher Education: Use of Moodle to Welcome New Chemistry Students

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1. Introduction

The transition from further to higher education can be a daunting time for students and there are many challenges associated with this transition (Coertjens *et al.*, 2017). The literature has demonstrated that preparation prior to arrival at university is a key step. Methebula (2015) suggested that open days for students who have accepted an offer played a pivotal role in students' expectations and understanding of the degree programme. Raacke and Bonds-Raacke (2015) demonstrated that social networking with their cohort before arriving at university was beneficial as students who engaged more online needed less adjustment to their new academic environment. A later study (van Herpen *et al.*, 2017) demonstrated that "pre-university effort and pre-university academic self-efficacy both positively correlated with academic success."

On listening to our current students' concerns about the volume of information given during induction week, we decided that a pre-university welcome Moodle page would help new students on their journey to higher education. This poster outlines our approach to designing the page and shows the initial student feedback from the pilot study during its first year of use.
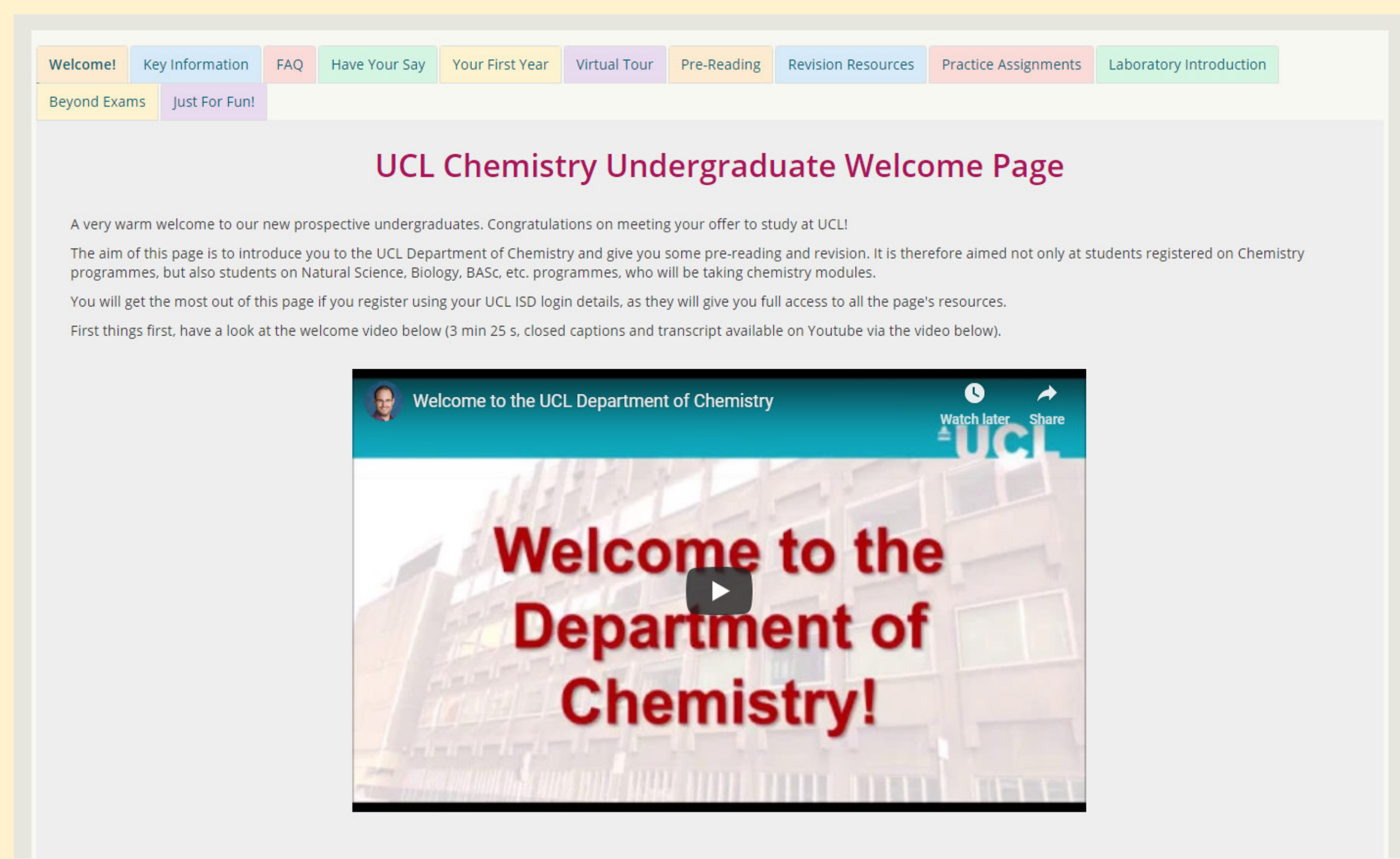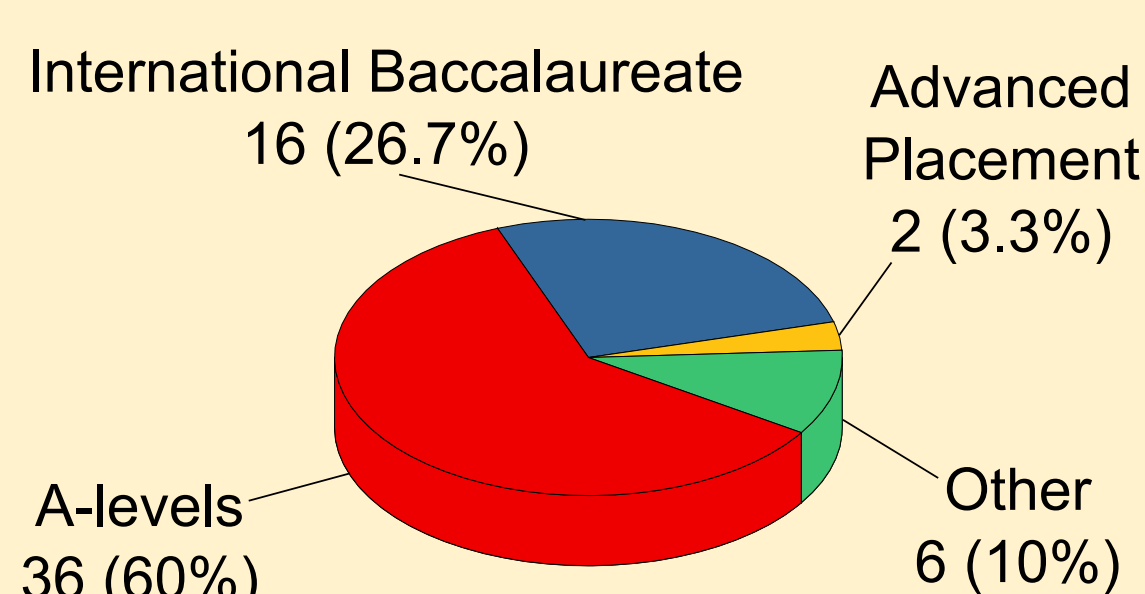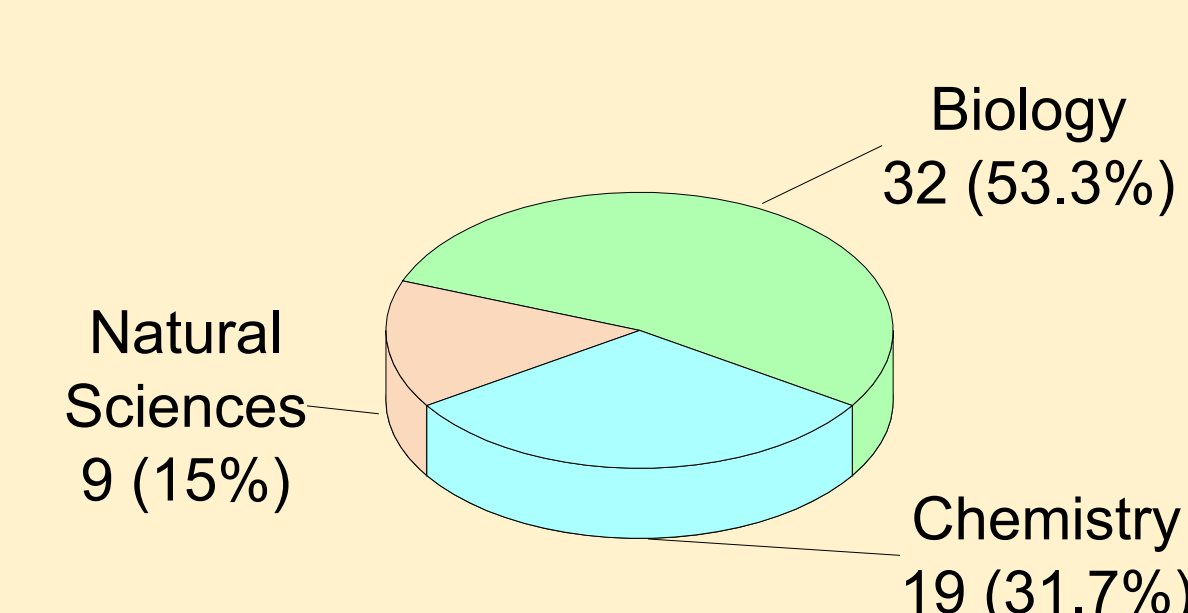

Figure 1: The home screen of the Moodle page.

3. Participants

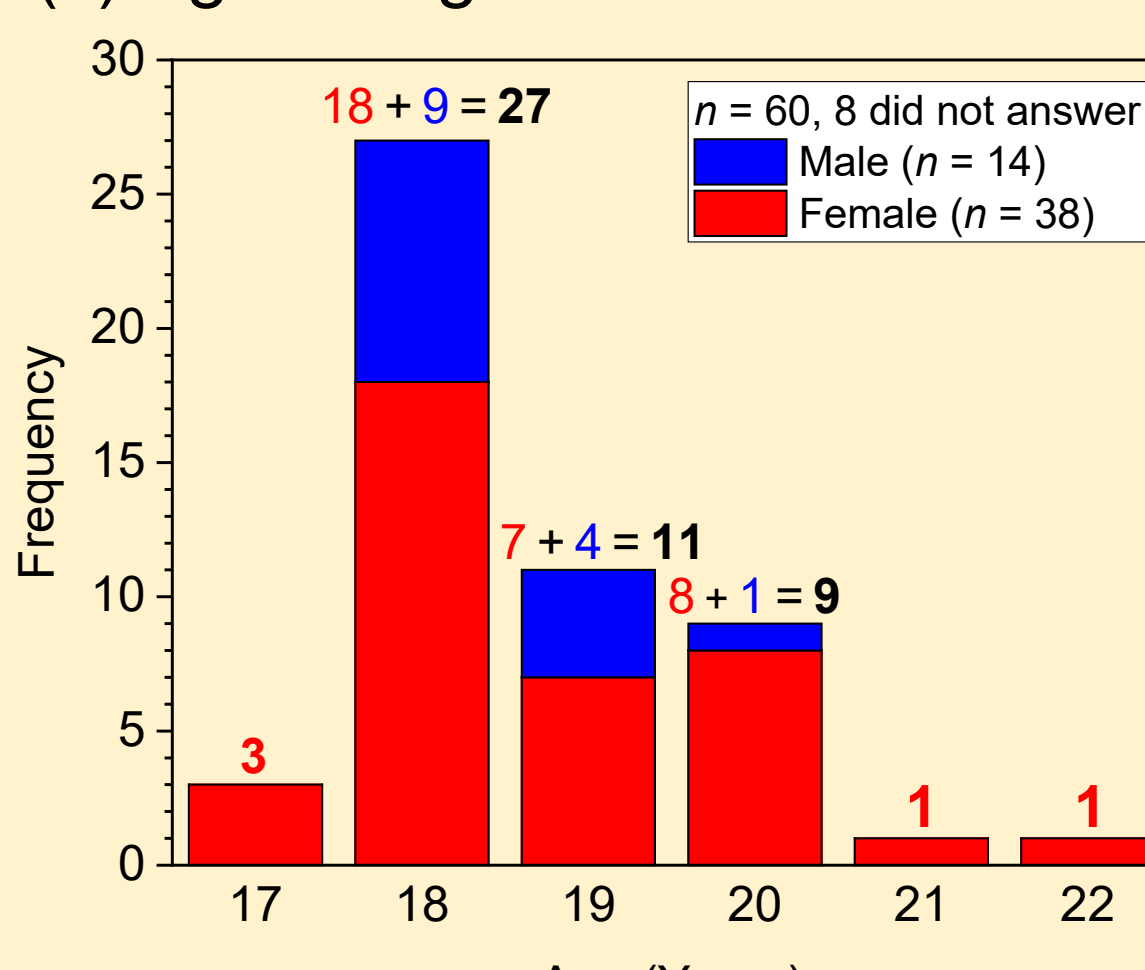Users of the welcome page were surveyed anonymously at the beginning of term ($n = 60$).

(a) Pre-university qualifications

International Baccalaureate 16 (26.7%)
Advanced Placement 2 (3.3%)
A-levels 36 (60%)
Other 6 (10%)

(b) Main programme of study

Biology 32 (53.3%)
Natural Sciences 9 (15%)
Chemistry 19 (31.7%)

(c) Age and gender

$n = 60$, 8 did not answer
Male ($n = 14$)
Female ($n = 38$)

(d) Nationality

Category	Freq.	%
UK	14	23.3
EU	12	20.0
International	30	50.0
Not defined	4	6.7

Figure 8: Participants' backgrounds.

2. Page Sections

Sections were chosen based on a survey of staff and current students.

- Welcome page (Fig. 1) and video (Fig. 2).
- Key information:
  - Departmental information and procedures.
  - Safety page.
  - Student wellbeing.
- Information about a typical first-year experience.
  - Term dates.
  - Options (Fig. 3).
  - Example timetables.
- Virtual tour of the department (Fig. 4).
- Pre-reading (e-texts on Bibliotech, Fig. 5).
- Revision resources:
  - Quizzes with substantial feedback (Fig. 7).
- Practice assignments:
  - Getting students accustomed to using Moodle.
- Laboratory induction:
  - Videos on how we run our labs (Fig. 6).
  - Lab technique simulations for practice (Learning Science).
- Information on extra-curricular activities.

Figure 2: Welcome video screenshot.

Figure 3: Module choice graphic.

Figure 4: 3D virtual tour.

Figure 5: Pre-reading example (Bibliotech).

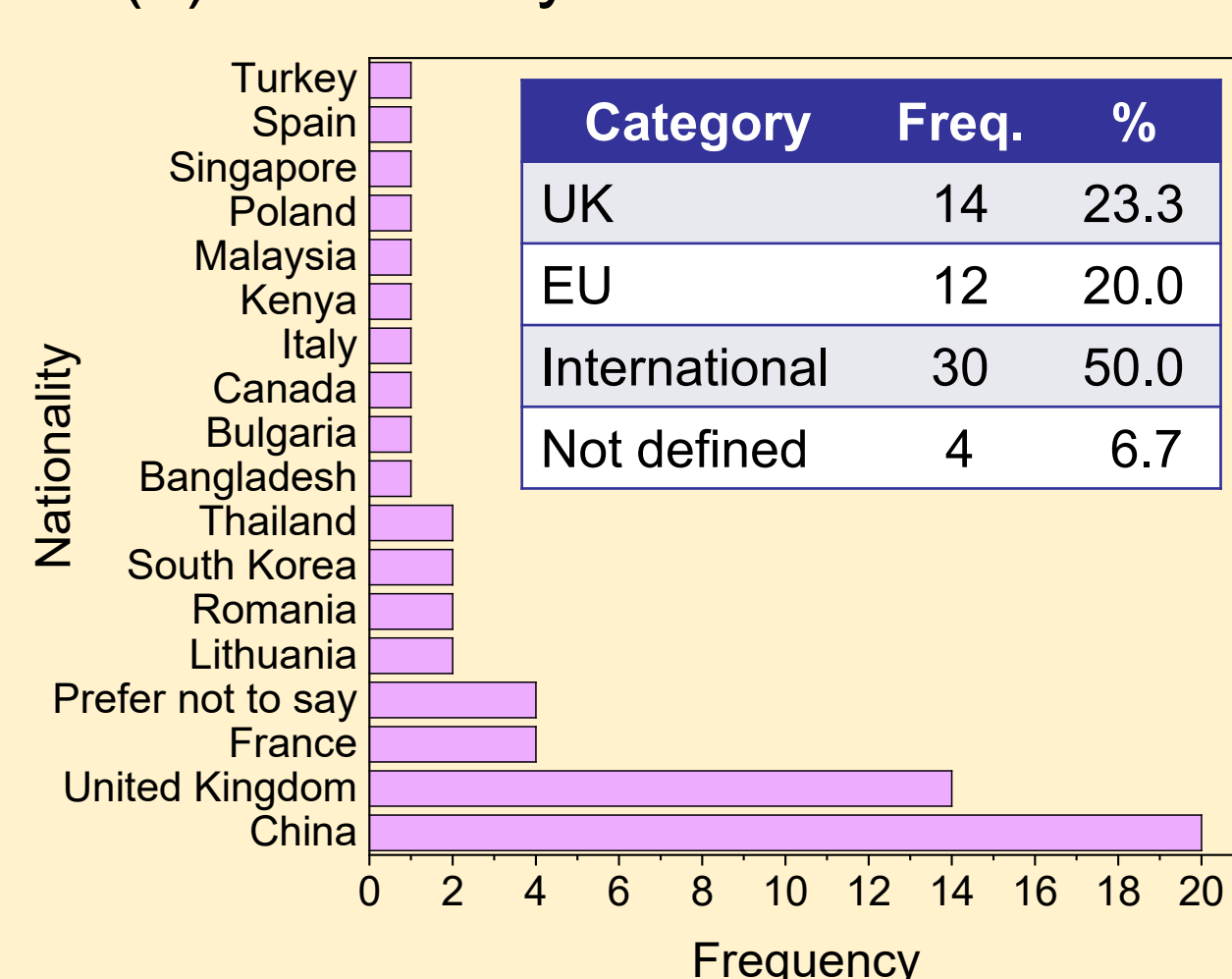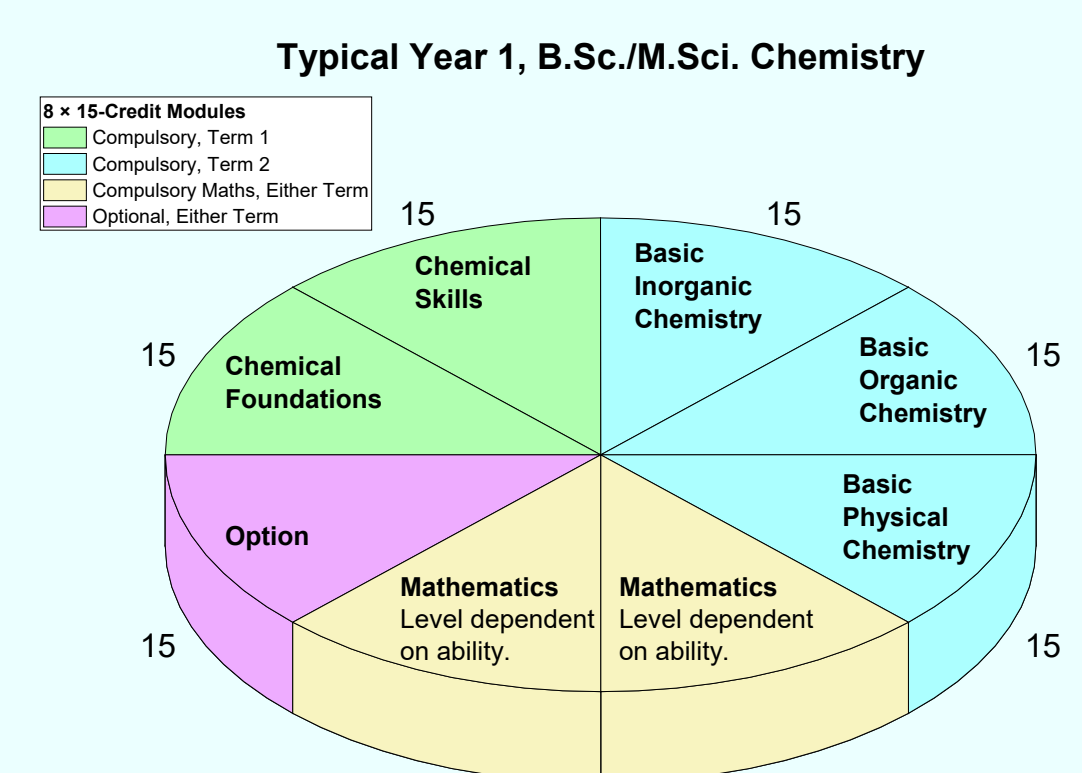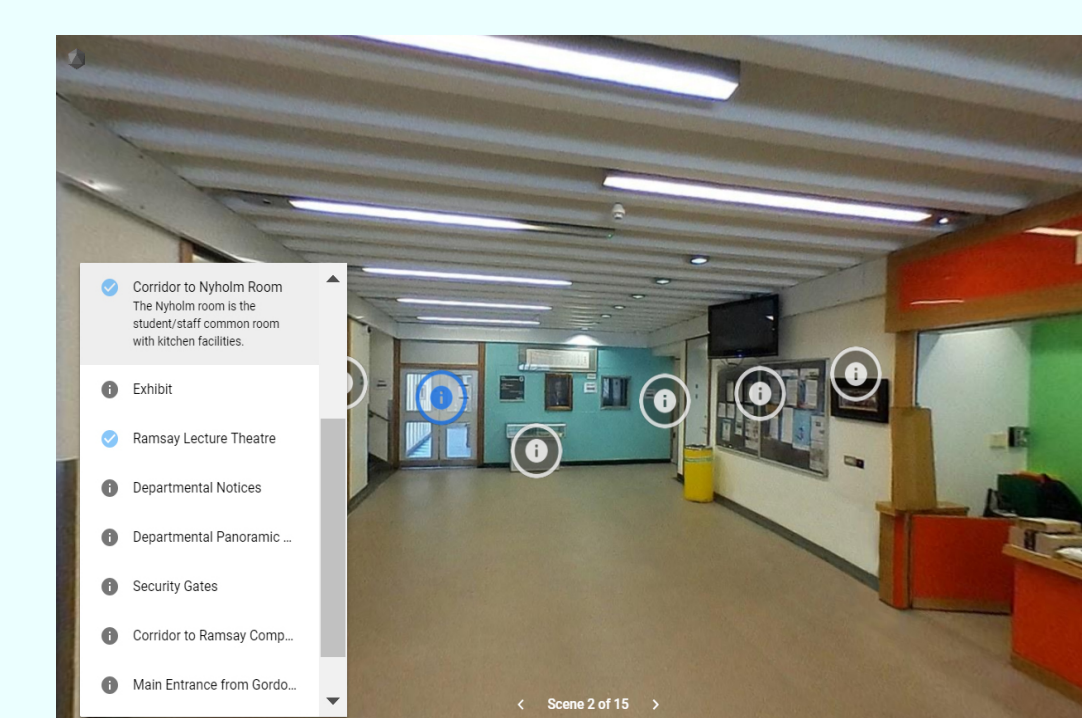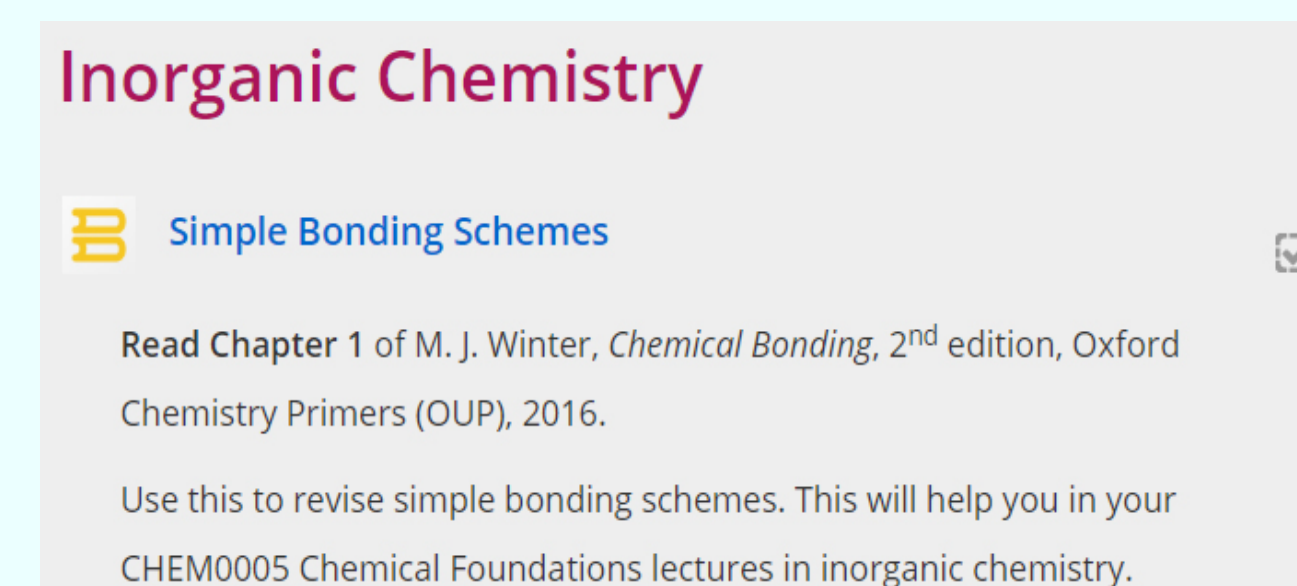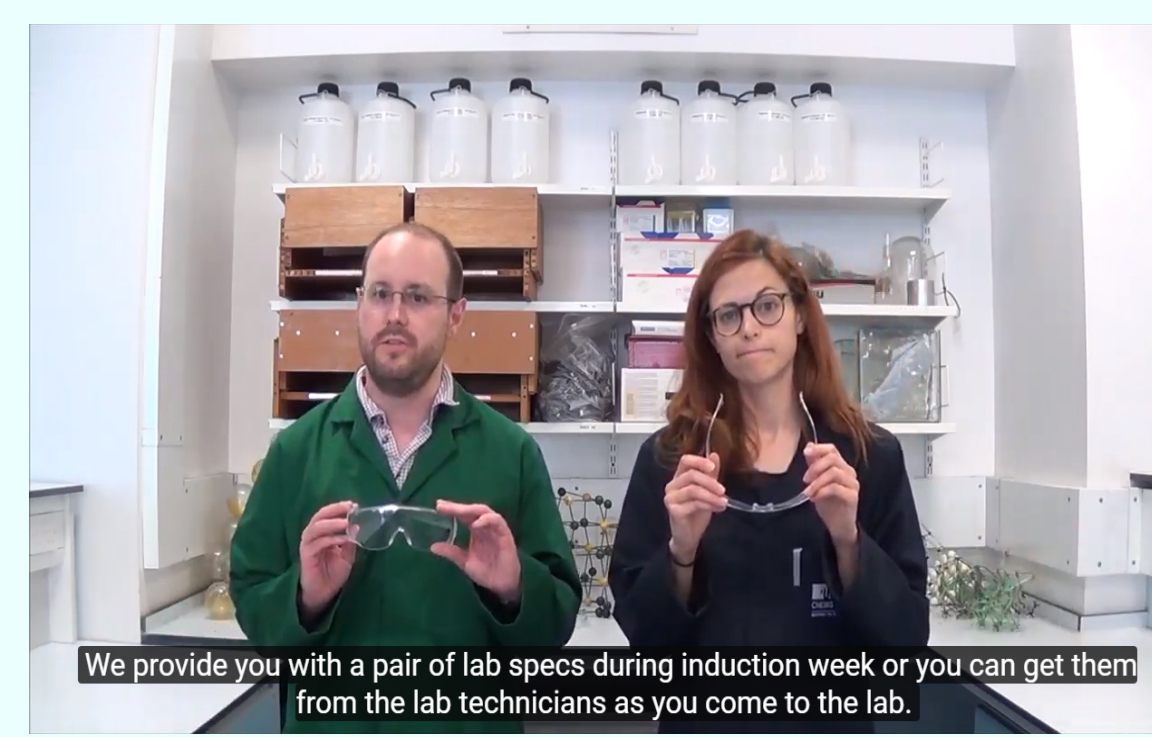**Figure 6:** Lab intro video screenshot.
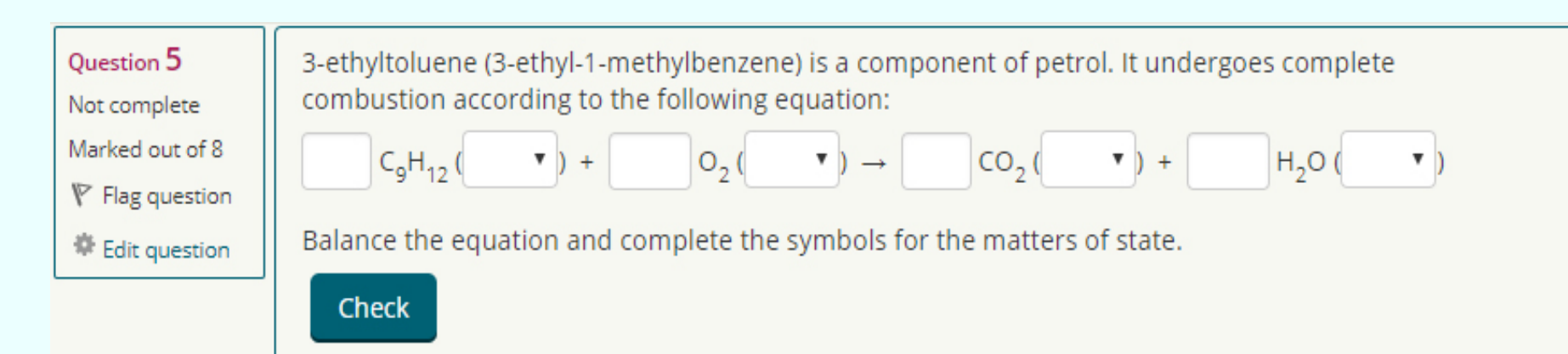
Figure 7: Revision quiz question, hosted on Moodle.

4. Results

Responses to a questionnaire at the beginning of term 1 ($n = 60$) were compared to those from a questionnaire at the end of term 1 ($n = 34$) using a Mann-Whitney U test.

Most popular facilities highlighted in orange.

Positive | Neutral | Negative | Did Not Use (N/A)

Figure 9: Responses to "I found [facility] useful".

"I am confident with coping with the workload at university."
$p = 0.760$

"I am anxious about my time at university."
$p = 0.825$

Beginning of Term 1 | End of Term 1

Figure 10: Impact on confidence and anxiety.

5. Conclusions & Outlook

There was a modest increase in confidence with workload and reduction in anxiety (although $p \approx 1$ for distributions being similar).

Lessons learnt from student feedback:

- A more course-like structure and/or more gamification will help students better engage with the material.
- More careful thought needs to be put into accommodating the needs of the rising number of international students, such as details on how university works in the UK.

References

- Coertjens, L. *et al.* (2017). "Students' Transition into Higher Education from an International Perspective", *High. Educ.*, **73** (3), 357–369.
- Mathebula, N. (2015). "Surviving First Year of University as a Student: Is it a Jungle?", *Int. J. Educ. Sci.*, **9** (1), 47–54.
- Raacke, J. and Bonds-Raacke, J. (2015). "Are students really connected? Predicting college adjustment from social network usage", *Educ. Psychol.*, **35** (7), 819–834.
- van Herpen, S. G. A. *et al.* (2017). "Early predictors of first-year academic success at university: pre-university effort, pre-university self-efficacy, and pre-university reasons for attending university", *Educ. Res. Eval.*, **23** (1–2), 52–72.

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Or scan the QR code