

Gathering student perception about online/distance practical science at level 1

Dr Victoria Nicholas



Project aim

To assess the change in student perception about online/distance practical science before and after studying particular level one modules.

Context

There is anecdotal evidence that students have a negative perception of the value of online science before starting their study. They appear to only do the module because it is a requirement of their pathway and are sceptical about how much “real science” they will be learning. Whereas after the presentation, students appear to be very positive about the experience and value of online tuition.

We aim to capture the student experience to demonstrate the value of this innovative method of delivering and developing practical science skills. We will use telephone interviews and questionnaires to gather this information, with the aim of improving our knowledge of student perception at the end of level one. This could impact on development of practical science skills in the Open University Science curriculum at all undergraduate levels.

If students feel more confident about their practical science skills, value the development of their skills and enjoy the online practical modules, they might wish to come back and do more science learning in an online practical environment.

The Open University is a world leader in delivering online practical science to a wide audience, notably through the OpenScience Laboratory. S155 Scientific Investigations and S141 Investigative and mathematical skills in science are both level one modules delivered solely online, S141 being the larger course which incorporates the online practical science element developed in S155. Student perceptions of the online module S155 Science investigations have been collected as part of the end of module surveys, but there has yet to be an evaluation of how students perceive the value of learning practical science in an on-line environment before and after the module. More importantly, how students' experiences on S155 and S141 change perceptions of how practical science skills are developed has not been examined.

Methodology

Short telephone interviews will be conducted with a small number of registered students prior to module start and one week after they submit their final assessment. The responses from these interviews will lead onto more detailed and more widespread questionnaires for subsequent presentations of the modules, both pre and post module.

Student data will be used to analyse the questionnaire responses with respect to age, gender, HE experience, employment sector etc.

Outcomes

By December 2014, the data will be collected and analysed for write up in an internal publication and journal publication for July 2015. The results of such an exercise obviously would inform developments within the University, but for the wider HE sector the results would be of interest, as a contribution to the debate about how to give students an authentic practical experience in an online distance learning context.

Online and distance learning are ‘hot topic’s for the higher education sector in the UK and beyond at present. Being able to articulate the benefits (as demonstrated through student perception) of participating in S141 and S155 may contribute to the University’s ongoing strategy to remain at the forefront of innovation in online distance learning

