**Pedagogic Research and Teaching Innovation (PRTI) Award: Final Report**

The final report should consist of a two-page summary of the project and its findings (using the fields below as a guide).

Along with this form, please also send (where relevant):

* Conference papers and/or articles for publication
* If your initial application was ‘approved with conditions, evidence that these conditions have been met (in ‘Other’)

Send all forms to: [teachandlearn@plymouth.ac.uk](mailto:teachandlearn@plymouth.ac.uk) by September 28th 2018

**Name of key contact (project leader):** Dr Charlotte Braungardt

**Department:** School of Geography, Earth and Environmental Sciences (SoGEES)

**Names of other staff involved:** Dr Alison Stokes, Ms Claire Guy, Dr Paul Warwick

**Title of project:** Research-led curriculum innovation to enhance core employability attributes for Environmental Science graduates

**Type of project:** Evaluation of practice and development

**Keywords**: Employability, Leadership, Communication, Resilience

#### Aims of project: To enhance graduate skills and cultivate professionalism, resilience and global citizenship through innovation of a research-led employability curriculum.

**Background/context to project**: The lack of employability skills among STEM graduates, in particular environmental science, has been highlighted in the 2016 Wakeham Review and was identified as key area for curriculum development by internal reports (e.g. Kneale, 2016). Surveys consistently indicate that ‘soft’ skills, such as communication, team working and a positive ‘can do’ attitude are highly valued by employers (e.g. Archer & Davison, 2008; CBI, 2009; Lowden et al., 2011). At the same time, many undergraduate students experience significant barriers to gaining employment, including confidence in their own employability (Beaumont et al., 2016).

SoGEES financed a pilot of three years (beginning AY2015-16), whereby BSc Environmental Science students (stage 2) undertake a 4 week programme of leadership training by an external provider, which includes classroom workshops and leadership practice during a 2-day overnight expedition on Dartmoor. In addition, lack of confidence and low resilience to multiple stressors faced during the transition period into adulthood were identified as barriers to students fulfilling their potential.

#### Methods used:

1. Evaluation of the impact of leadership training (LT) on graduate skills and employability through analysis of quantitative and qualitative data obtained from student self-evaluation, questionnaires and focus groups;
2. Research-led innovation of a coordinated, authentic and credible employability-focussed curriculum programme in collaboration with the consultancy Hart & Mind Ltd.;
3. Evidence-based identification of good practice that is transferrable to other courses.

**Results:** The results summarised here are supported with evidence and annotations in the conference presentations made available with this report. In summary:

* Leadership training has clear positive outcomes for top 10 employability skills and building confidence. The student self-assessment of their competency level in the top 10 eployability skills directly before and after the LT was completed by 136 students from three different year groups. The mean and median scores were > 6 for all skills (apart from commercial awareness) and included **a significant cohort with very low scores before the leadership training.** The ‘after’ scores were statistically significantly higher after the LT compared to before (Mood Median Test at 95% confidence level) and a**fter the training, the lowest scores disappeared** and the range and variability of the scores compressed, indicating that differences between students’ perceived skills level diminished. In addition, students who most needed to enhance their employability skills gained most from the training.
* Questionnaires revealed that leadership and communication training and personal development is perceived as important and valued highly within the curriculum.
* The project identified training gaps related to transitional career support as well as transformational work with our students. As a result, the involvement of Career and Employability Services at key points of our programmes has been reviewed, and action taken, for example with a skills session during stage 1 induction and enduction activities. Furthermore, a resilience training programme has been developed that aims to enhance wellbeing and through this performance of our students. This ‘Path to Success Programme’ is embedded in the tutorial system of BSc Environmental Science and BSc Environmental Management and Sustainability in the academic year 2018/19 as a trial, which will be evaluated for further development.
* The DLHE data show a 26.5% improvement, in comparison to previous two years, for the first cohort that graduated with the Leadership Training Award, and our course is now in alignment with the rest of our school. Although this increase cannot be attributed solely to the Leadership Training, it is an encouraging sign.

**Associated publications** (include details of intended/draft publications):

In preparation: Braungardt, Stokes, Warwick, Guy & Child (2019) Impact of leadership training on graduate career readiness. To be submitted to Journal of Further and Higher Education.

**Dissemination** (conferences/ workshops/consultation, Plymouth University conferences and events, etc.):

* HEN Conference presentation at Geological Society of London Higher Education Network Annual Meeting, Plymouth January 2018
* Presentation of one key outcome of the project to the university’s Mental Health Task Force, February 2018 (narrated)
* VC TL conference presentation at 16th annual VC T&L conference, Plymouth June 2018
* The material to be used in the trial of the Path to Success Programme was disseminated for consultation and invitation to a training day was made. Participants in this training included Paul Warwick (CSF), Alison Turner (SoGEES, Chem), Steve Grimes (SoGEES Associate Head of T&L), John Hilsdon (Learning Support, Wellbeing), Alice Ludgate (Mental Health Task Force), Harriet Dismore (Education Development), Meriel Fitzpatric (SoGEES, Earth Science), Anne Bentley (Student Counselling), Priska Schoenborn (TLS), as well as academics on our BSc programmes: Tom Hutchinson, Alison Stokes, Richard Sandford, John Rieuwerts, Lynda Rodwell and Charlotte Braungardt.

**Total project expenditure:** GH102007-122: £6052.04, although I don’t really understand the attached spreadsheet.

**Are you happy for us to include your project on our website?** Yes