

Title

Confident Diversity: a new approach to equality and diversity for tomorrow's engineering leaders

Abstract

The need to consider Equality and Diversity within the curriculum and in learning and teaching is increasingly on the agenda within Higher Education (HEA, 2015). The Higher Education Academy has worked in this area over a number of years and is currently developing an Equality Standard to support institutions in this activity.

'Confident Diversity' is an innovative intervention model which looks at the issue of inequalities in STEM fields through a new lens: aligning the employability and equality, diversity and inclusion agendas within education. This is the first time this approach has been used within Higher Education in the UK. At its heart are two key concepts:

- Today's students are tomorrow's managers and leaders who will influence ED&I in their workplaces
- To be confident in managing difference we need both knowledge and enhanced personal skills

In the "Confident Diversity" model, input is embedded throughout the curriculum and linked to Professional Institutions' standards.

When considering equality and diversity within a curriculum, the Higher Education Academy (2015) argues that, for academic institutions to be "equality and diversity competent", they must consider two factors:

- "inclusivity" in terms of teaching and assessments
- "diversity inclusivity", defined as an intentional engagement with difference, including in curriculum content.

The "Confident Diversity" model provides institutions with an approach to "diversity inclusivity" in the classroom while supporting students to develop professional knowledge, skills as well as the motivation to challenge inequality within their future organisations and wider society.

The School of Engineering and the Built Environment, Equate Scotland, the Confident Futures team partnered to run a pilot study based on the model. A workshop based on the 'Confident Diversity' model was embedded within the 3rd year Engineering with Management 2 curriculum and was delivered four times, to different groups of students, over a one-week period. The learning outcomes of this module include "understand the role of and apply professional skills such as leadership, motivation and teamwork to actual engineering projects" and "integrate professional engineering standards with professional practice, complying with the requirements of professional institutions". The engineering degrees are all accredited by the Institute of Engineering and Technology, which has a requirement for graduates to have an understanding of the need for a high level of professional and ethical

conduct in engineering. It is therefore vital that equality and diversity are given due consideration as part of this module.

The decision to embed the workshop within a relevant module was a significant one, as it was recognised that the students needed to see this as an important part of engineering and not just an additional box-ticking exercise. Indeed, relating subject matter via engineering applications to the real world is a well-documented motivator for learning. The pilot received excellent student feedback, with students' average score for confidence in talking about difference and diversity rising from 6.4 prior to the workshop to 7.9 after.

The paper describes the 'Confident Diversity' model and its origins, outlines the rationale for this work and describes the recent successful pilot study, including practical reflections from a learning and teaching perspective and consideration of the opportunities and challenges of embedding new materials within a busy curriculum. Feedback obtained from the students, both formally and informally, will be presented and discussed. Thought will also be given to the potential to transfer this model into other subject areas and educational settings.

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