Embedding Inclusivity in Professional Development

Joint Executive Statement from the Imperial College London Roundtable Debate on 20 October 2017

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Introduction

This joint statement is the outcome of the roundtable debate on developing inclusive practices in professional skills development for STEM postgraduates. It took place on 20 October 2017 at Imperial College London. The roundtable debate brought together representatives from industry, learned societies, and professional bodies, the Higher Education Funding Council for England (HEFCE), VITAE, the UK Council for Graduate Education (UKCGE), National Centre for Universities and Business (NCUB) and higher education institutions. The full list of contributors is documented at the end.

The aim of this roundtable debate was to discuss how the represented organisations could ensure professional development for researchers was inclusive for all genders. To set the scene, Professor Liz Thomas, external consultant and Professor of Higher Education at Edge Hill University gave a presentation to provide the context for the debate. Professor Thomas started with an overview of the protected characteristics as set out in the Equality Act of 2010. She then focussed on gender and in particular women in STEM and the "leaky pipeline." It was noted there has been comprehensive national work funded by government and industry but it still remained a major issue in the UK (15.8% of engineering and technology undergraduates in the UK are female [1]). She then highlighted the role of professional development in career progression (only 9% of the engineering workforce is female[1]) and asked whether gendered engagement with training and development opportunities was a contributing factor. Indeed, at Imperial College London, the Graduate School has anecdotal observations that there are gender differences in course participation and gendered roles in active learning and group activities. These observations have raised questions about wider patterns of participation and engagement and how professional skills courses could be more inclusive.

Figure 1 Professor Liz Thomas

To consider inclusivity in professional development the attendees debated the following questions:

1. Which professional development courses have gendered enrolment?
2. Why is enrolment gendered?
3. In what ways is in-class engagement and interaction gendered?
4. What are the implications of gendered participation and interaction for students, the STEM sector and learning and teaching of professional development courses?
5. What can be done to reduce any negative impact of gendered participation and engagement?

Note: The roundtable debate is the launch activity of a research project which will be carried out by Imperial College London Graduate School and Professor Liz Thomas. The working title of the project is "*Gender Biased Participation and Interaction in Professional Development by STEM PG Students*".

Discussion

Inclusive Teaching Practice

The importance of inclusive teaching practice in professional development starts with the design of programme. The discussion focused on the many factors which should be taken into consideration when exploring ways in which to embed inclusivity such as cultural background, field of study, personality types and individual confidence. Tutors should consider all these factors when designing professional skills courses and once again to be aware of their own bias when developing the content of courses. Hocking (2010) provides a synthesis of research on inclusive teaching and learning.

> I will look at the language used to describe our courses

Impact of course titles and course descriptions

Evidence from undergraduate programmes (e.g. Humanitarian Engineering) has highlighted the importance of course titles and how course descriptions may affect course participation. However, it was agreed that course leaders should also ensure that they provide authentic course titles and descriptors. Course descriptions should emphasise future usefulness of the course including its applicability to a range of careers and how employers view the skills and attributes developed. Leadership and project management courses were two examples of lack of diverse engagement and it was agreed that further work to explore this was needed. This will include an exploration of the impact of promotional activities and ensuring diversity in images and branding used.

Active Learning

In active learning the need for course facilitators to manage and be inclusive in their practice was highlighted as important. A mixed approach to group activities was recommended with opportunity for all to engage in ways in which they feel comfortable. Course facilitators should take care not to push too hard with some individuals. Furthermore creating a competitive environment could present a barrier to inclusivity for some groups. It was concluded that not everyone needs to participate in an active way to learn, other students learn differently. It was agreed that the design of assessment was also an important consideration for tutors wishing to create inclusive courses. It was also agreed that tutors should consider the provision of student examples for case studies as a way in which to support and encourage inclusivity.

> I will reconsider what good looks like, I will reassess activities, and remodel for inclusion.

The provision of Graduate Teaching Assistant (GTA) training was discussed and the importance of providing GTAs with training on inclusive approaches to teaching was highlighted. Professional development for research students on unconscious bias was also a worthwhile consideration.

It was agreed that care should be taken when developing "women only" courses to ensure that this does not perpetuate the challenges.

Women in STEM

> I will attend unconscious bias training – I have been putting it off

Discussion on the role of women in STEM subjects, the related workplace issues, and the "leaky pipeline" highlighted that there are a lack of women role models. There are few women in senior roles or those who can act as mentors to junior women. In particular the lack of senior female role models in some industries has led to few or, in some cases, no networks for senior women to engage with.

Hence there is a lack of connectedness especially for women in senior leadership positions. The group concluded that it was important to raise the profile of role models for individuals within all protected characteristics. The group commented that employers should be mindful of their own bias and of recruiting in their own image when recruiting new staff.

Additionally, the accessibility of development opportunities may be affected by family life particularly when returning to work following parental leave. Hence the timing and mode of delivery may act as a potential barriers for some.

Learning from Industry

Employers were keen to look at recruitment practice and extending role models and networking opportunities. The discussion highlighted that some professions such as the computing and engineering industries had greater diversity challenges (such as finding senior women to network with) than perhaps educational institutions.

Learning from Professional Bodies

I have noted points for consideration in review of standards including ways to include diversity in the review.

Professional Body representatives reflected that membership assessments are carried out by members in senior positions, if these positions are held predominantly by one gender then there may be an unconscious bias in assessment. Looking at diversity in assessment and review panels was considered essential to embed inclusivity.

Learning from Sector Agencies

The sector agencies have played a key role in supporting and sharing effective practice on how to evaluate and embed appropriate practice. Many of the sector agencies have been actively engaged in encouraging inclusivity. They commented on "considering longitudinal bias of widening participation schemes not just immediate impact".

Learning from Higher Education Institutions

I will be more aware of the issues as a student leader and I want to actively influence change

Higher Education Institutions were encouraged to reflect on their current course provision and to develop an awareness of their practice. Many commented that they would now consciously consider inclusivity during design and branding of courses. There was raised awareness of course labelling. Looking forward, it was agreed that institutions have a role to play championing inclusivity and should establish processes to carefully monitor participation and take action accordingly. Highlighting students from particular groups as role models could be strengthened with Student Unions playing a role in this. It was commented that "*male student leaders have a key part in being champions of gender inclusivity*". More broadly, the group commented that all could play an active role in increasing the pool of diversity in open educational resources.

Executive Summary

The roundtable identified a number of key themes:

- Professional development course descriptors should clarify the current and future usefulness of the skills and attributes being developed.

- Professional development course titles may have an impact on diversity of participation, hence inclusivity should be taken into account when deciding on titles.

- The language and images used in course materials should be reviewed with inclusivity in mind.

- Active learning and teaching requires tutors to be aware of and manage in-class engagement and ensure inclusive interaction.

- Training in unconscious bias is valuable for tutors and all those with key roles in professional development.

- Identifying and promoting diverse networks and role models are important in promoting inclusivity in professional development opportunities.

Impact from Roundtable Debate

The attendees provided feedback on what they would do as action points or take home messages from attending the debate. Some of these have been captured in the quote boxes in this document and others are listed below:

- I will consider longitudinal bias of widening participation schemes not just immediate impact
- I will look at the branding of our courses
- I am interested in how companies recruit postgraduates, what does the data tell us?
- I will consciously consider inclusivity in design of courses
- We are actively considering inclusivity as an organisation

References

[1] Women's Engineering Society Useful Statistics, available from http://www.wes.org.uk/content/useful-statistics accessed 9/11/2017

[2] Hockings, C. (2010) Inclusive learning and teaching in higher education: a synthesis of research. York: Higher Education Academy. Available from https://www.heacademy.ac.uk/system/files/inclusive_teaching_and_learning_in_he_synthesis_200410_0.pdf

Contributors to the debate, 20 October 2017

Higher Education Institutions

- Brunel University   Dr Inma Andres
- Edgehill University   Prof Liz Thomas
- Kings College London   Dr Ross English

Higher Education Sector

- Higher Education Funding Council England   Christopher Millward
- VITAE   Alison Mitchell
- UK Council for Graduate Education   Angus Burns
- NCUB   Ali Orr

Industry

- Wellcome Trust   Dr Jonathan Best
- Google   Aga Madurska

Professional Bodies

- Royal Society of Chemistry   Dr Jonelle Harvey
- Engineering Council   Catherine Elliott

Student Representatives
- Imperial College Union   Nick Burstow
- Imperial College Graduate Student Union   Luke McCrone

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- Director of the Graduate School   Professor Sue Gibson
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