Athena Swan Team

Discussion document: a) Gender bias in student teaching feedback on teaching colleagues and how to mitigate this; b) Unconscious bias (UB) training

a) Gender bias in student teaching feedback on teaching colleagues and how to mitigate this

Gender bias in student teaching feedback

Student evaluations of teaching (SETs) involve significant gender bias. Students tend to evaluate male teaching performance more highly than female teaching performance, including in higher education. This has been identified consistently in a wide body of research from a range of different countries, including the UK (Arbuckle & Williams, 2003; Abel & Meltzer, 2007; MacNell et al., 2015; Wagner, Rieger & Voorvelt, 2016; Boring, 2017; Mengel, Sauermann & Zölitz, 2018; Mitchell & Martin, 2018; Rosen, 2018; Özgümüs et al. 2020; Heffernan, 2022; Sigudardottir et al. 2022; Suárez Monzón, Gómez Suárez, & Lara Paredes, 2022). Although a small minority of studies do not reflect this trend, the vast majority do, across disciplines. Rosen (2018), using a sample of millions of 'Rate My Professor' scores, found there was not a single discipline where women receive higher evaluations than men.

Kreitzer and Sweet-Cushman (2021) recently reviewed over 100 articles on bias in student evaluations of teaching, highlighting the ways in which student evaluations are 'problematic' for women and/or marginalised groups, who tend to be evaluated less well compared with majority-population males. These lower evaluations impact potential career progression, feeding into the under-representation of women and individuals from minority backgrounds in senior positions in higher education (French & Carruthers Thomas, 2020).

Kreitzer and Sweet-Cushman identified two overarching themes from the literature: measurement bias (teaching evaluations being poor indicators of teaching quality and/or effectiveness); and equity bias 'relating to the instructor's gender, race, ethnicity, accent, sexual orientation, or disability status' (page 5). They observed,

> … men are perceived as more accurate in their teaching, have higher levels of education, are less sexist, more enthusiastic, competent, organized, professional, effective, easier to understand, prompt in providing feedback, and are less-harshly penalized for being tough graders. Experimental designs that manipulate the gender of the instructor in online teaching environments have even shown that students offered lower evaluations when they believed the instructor was a woman, despite identical course delivery… Students are also more likely to expect special favours from female professors and react badly when those expectations aren't met or fail to follow directions when they are offered by a woman professor. (Kreitzer and Sweet-Cushman, 2021, 5)

The underlying cause of these gendered effects has, unsurprisingly, been attributed to the effects of gender stereotyping (Kwok & Potter, 2021) at the intersection with race and ethnicity (Bavishi, Madera, & Hebl, 2010; Chávez & Mitchell, 2020), although more research is needed in relation to the latter. Llorens et al (2021) go further, arguing that SETs bias needs to be understood within the wider context of gender bias in academia, the privileging of masculinity in academic contexts, and the under-representation of women (especially women of colour) in senior roles in higher education. In other words, negative student stereotyping takes places within a wider cultural context of gender disadvantage in academia. Heffernan (2021) concurs, arguing that

> Student evaluations are openly prejudiced against the sector's most underrepresented academics and they contribute to further marginalising the same groups universities declare to protect, value and are aiming to increase in their workforces. (Heffernan, 2021, 145).

Mitigating unconscious bias in student evaluations

Informing students about unconscious bias in SETs tends to mitigate such bias. In the US, Peterson et al (2019) found that simply informing students of the potential for gender bias in SETs served to reduce it. In France, Baring and Phillipe (2021) compared two anti-bias email interventions with university students. One email simply encouraged students to be careful not to discriminate in SETs. The other email included the same warning, supplemented by information about gender bias in SETs. They found that the first type of email had no impact on gender discrimination in SETs, while the second type of email significantly reduced gender discrimination, especially in relation to male students' evaluations of female educators.

In the US, Riveraa and Tilcsikb (2019) have also reported that varying the points on evaluation scales mitigated gender bias in SETs with a shift from a 10-point scale to a 6-point scale narrowing the gap between evaluations of male/female educators.

Kreitzer and Sweet-Cushman (2021) have recommended that SETs should be reframed within educational organisations as providing information about student perceptions of learning, not a measure of the actual quality of the teaching provided. They also propose that administrators discount evaluations with low response rates, avoid comparisons between faculty members, and restrict or eliminate the use of qualitative comments, as these demonstrate 'the clearest evidence of gender bias' (8). They also recommend using alternative strategies to evaluate teaching, including peer observations and independent evaluations of teaching materials, even though these also have similar biases: 'using multiple (potentially) flawed measures of teaching is better than a single measure, provided they aren't all systematically biased in the same way' (8). Lastly, they call for more research on interventions to reduce bias.

Constantinou and Marjo Wijnen-Meijer (2022) also recommend improving Student Evaluations of Teaching (SETs) by going beyond the use of anonymous questionnaires to collect a more layered and nuanced picture through 'the collection and triangulation of data from multiple sources, including students, peers, program administrators and self-awareness via the use of different methods such as peer reviews, focus groups and self-evaluations' (1).

At the University of York, the Department of Biology recommend prefacing SET evaluations with an adapted version of the following statement:

> Student feedback on teaching plays an important role in the review of our teaching, helping us to improve our teaching. The Biology Department recognises that student evaluations of teaching may be influenced by students' unconscious and unintentional biases about the race and gender of teaching staff. Women and BAME (black, Asian and minority ethnic) staff are systematically rated lower in their teaching evaluations than white men, even when there are no actual differences in the teaching or in what students have learned.
>
> As you fill out the module feedback please keep this in mind and make an effort to resist stereotypes about lecturers. Focus on your opinions of the module (e.g. how well you understood the material, the content of the module, how well you think it was taught) and not unrelated matters (e.g. the lecturer's appearance).
>
> Biology at York has an Athena Swan Gold award recognising our commitment to gender equality - Biology at York, where we can all be ourselves.[1]

[1] Dr Elva Robinson, Department of Biology:
https://docs.google.com/document/d/10AX08lf1ZJg9kXlzSeGAdHGCu-23fnCFJBg6KOSlsg8/edit

Summary

Gender bias in student evaluations is a significant concern, particularly given the implications for women educators' career progression, in the context of male-privileging academia. Alerting students to gender bias, with information about it, and its gendered implications for academic careers, would appear to mitigate it to a certain extent.

b) Unconscious bias (UB) training

Unconscious bias

According to Advance HE (2020),

> Implicit or unconscious bias happens by our brains making incredibly quick judgments and assessments of people and situations without us realising. Our biases are influenced by our background, cultural environment and personal experiences. We may not even be aware of these views and opinions, or be aware of their full impact and implications… unconscious bias can heavily influence recruitment and selection decisions.

As an example, the Advance HE highlights the 2012 study by Moss-Racusin et al (2012) which found that academic science faculties were more likely to rate identical job applications, apart from the applicant's gender, differently according to gender. Male candidates were rated as better qualified than female candidates, male candidates were more likely to be considered suitable for employment, male candidates were thought to merit a higher starting salary than the female candidate, and there was greater willingness to invest in the career development of the male candidates than that if the female candidates.

The UK-government-commissioned McGregor-Smith independent review (McGregor-Smith, 2018) of race in the workplace concluded that 'BME representation in some organisations is clustered in the lowest paid positions' and that this was attributable to systemic unconscious bias which 'doesn't just affect those from a BME background, but women, those with disabilities or anyone who has experienced discrimination based upon preconceived notions of what makes a good employee' (page 1) The review recommended a process of culture change, whereby 'organisations should be striving to create a genuine culture of openness and inclusion' (page 9) and that this should be supported by unconscious bias training.

Unconscious bias training

In recent years there has been an upsurge in unconscious bias training (UBT), however there is divided opinion regarding its effectiveness. In 2018, the Equality and Human Rights Commission published a comprehensive review of the literature (Atewologun, Cornish & Tresh, 2018). The review identified the following core elements of UBT:

- An unconscious bias 'test' followed by a debrief
- Education on unconscious bias theory.
- Information on the impact of unconscious bias (statistics/illustrative examples
- Suggested bias reduction strategies, e.g. exposing participants to stereotype-contradicting examples, and bias mitigation strategies, e.g. blind review in recruitment.

The review found a mixed picture in relation to the effectiveness of UBT and called for more research. It generally raises awareness about unconscious bias, and may reduce implicit bias (stereotypes) although does not eliminate it. However, UBT is generally not aimed at explicit bias (overt prejudice discrimination towards specific groups) and training which has done has produced inconsistent results. In other words, while raising awareness, and possible reducing stereotypes UBT is less likely to change deeply ingrained prejudice and discrimination.

University Initiatives

Plymouth University (undated) has identified a range of strategies to address unconscious bias in teaching, including raising awareness about unconscious bias, encouraging self-reflection and identification of one's biases, 'avoiding snap judgements', and creating an open atmosphere in which unconscious bias can be discussed.

> It is important that academics do not feel guilty about having unconscious biases, which are an inevitable consequence of the use of shortcuts in human decision making. Instead, try to use your increased self-knowledge to promote an atmosphere of inclusion in teaching and learning… **bear in mind that students will have unconscious biases too, towards each other and the staff. It might help to talk to your students about unconscious biases, and think about ways to manage biases. Consistently taking steps to mitigate stereotypical views and biases can contribute to a change in culture across the whole university.**

Plymouth University also suggests taking the Implicit Association Test (IAT) (https://implicit.harvard.edu) (Nosek, Banaji & Greenwald, 2010) which tests for biases on '…amongst others, race, religion, sexuality, age, weight, disability and skin-tone.'

The University of York delivers an online course 'Unconscious Bias Awareness in Recruitment & Selection.'[2] The Dept of Chemistry has developed an unconscious bias observer scheme to reduce UB in recruitment and promote good practice.[3] The Dept of History has produced a related document 'The Role of Observer in the Department of History'.[4] York Law School previously provided unconscious bias information for interviewers of student applications, now discontinued as interviews are no longer part of the recruitment process.[5]

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[2] https://york-ac.csod.com/ui/lms-learning-details/app/course/f2c68ea1-f699-453b-92a2-849137a95f66 (login required)

[3] https://www.york.ac.uk/chemistry/ed/resource-hub/unconscious-bias-scheme/

[4] https://docs.google.com/document/d/1eeQJrlv46l7d1gNFzAAPitlJ16Vuu5_F/edit (login required)

[5] NB there may be other initiatives, of which I am so far unaware – apologies for any omissions

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