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Supporting students learning despite difficult workplace interactions

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INTRODUCTION

Students report the opportunities for learning provided by an internship or work experience include gaining an understanding of engineering practice, developing competencies, networking, awareness of the relevance of engineering studies, awareness of possible future roles and future employers [1]. However, these learning opportunities can be negatively affected by undesirable workplace practices such as bullying and discrimination which may be due to a range of factors, but typically including gender, culture, disability, sexual orientation or age. We can't protect students from these types of interactions but we can help them deal with them when they occur.

This paper describes a workshop run for undergraduate students to increase their awareness of issues often encountered by students that may result from workplace culture such as discrimination, differing expectations of appropriate behaviour or work roles and stereotyping.

BACKGROUND

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Under the Australian Fair Work Act 2009 bullying is defined as "*repeated, unreasonable behaviour directed towards a worker or a group of workers that creates a risk to health and safety*" [2, p.353].

Aggregated results from a series of European studies of workplace bullying show that up to 20% of respondents report being subjected to some form of negative behaviours in the workplace [3]. These researchers note that it is not only the bullies and victims involved but also a larger group of bystanders that are also negatively affected by behaviours such as bullying. Furthermore they report that "*minority groups who differ from the main groups in salient characteristics carry a higher risk of being socially excluded from the group*" [3, p.80].

One such form of difference is gender where aggregating results from 30 separate samples with a total n= 5679, 61% of victims of bullying were women and 39% were men [3]. Salin & Hoel also argue that bullying is a "*gendered rather than gender-neutral phenomenon*" [4, p.235]. Zapf et al suggest that women may be seen as "intruders" in male-dominated cultures and that:

"*...managers and supervisors appear to play a dominant role in bullying; that men are over-represented in such positions may explain why men are more often among the bullies than women*" [3, p.80].

The engineering sector in Anglo-based cultures has been characterised in multiple studies as being a hostile environment for women [5, 6]. Barnard et al [5] interviewed twenty-six female engineering students in the UK before, during and after their industry placements. Students responded to the workplace culture by 'acting like one of the boys', 'accepting gender discrimination' and 'achieving a reputation', seeing 'advantages over disadvantages', or adopting an 'anti-woman approach' [5, pp.418–21].

In a survey of 160 engineering students across three universities in Australia [7] reports that most students had positive work placement experiences but there was some evidence of experiences consistent with gendered workplaces. These included female students experiencing interactions that Hatmaker [8, p.387] identified as marginalising female engineers—namely 'amplifying' gender, 'imposing gendered expectations', 'tuning out' when women speak, and 'doubting technical abilities' of women. Students reported feeling vulnerable during their work experience and internships because of the difficulty finding placements and the need to complete these placements to graduate.

However, men are also subjected to bullying in the workplace. In an Australian study [9] the construction industry showed a higher rate of workplace bullying than a range of other industries sampled. We sadly note the suicide of a seventeen year old apprentice in an Australian engineering organisation in 2008 [10].

The aim of the workshop described in this paper was to increase participants' awareness of negative behaviours they may encounter in the workplace and to increase their resilience in coping with them. Van Heugten [11] shows that when participants had some sense of control over their situation and when they received support from bystanders and managers, that their resilience was enhanced.

1 WORKSHOP DESIGN

The workshop was based on findings from a study of the gender inclusivity of engineering students' experiences of workplace learning [7]. As part of this study thirteen engineering students at the three partner universities, including four male students, were interviewed. Based on critical incidents described in these interviews

role plays were developed for the workshop. The critical incidents include examples of bullying, amplifying gender, making requests based on gender, making assumptions based on gender, and doubted technical credibility. The role plays were designed for students to act out these critical incidents both to simulate the experiences inherent in the scenario and to illustrate it for other workshop participants.

A pre-workshop survey of 8 questions was used to generate students' reflections on the range of behaviours associated with bullying, discrimination and stereotyping that they had been personally exposed to. The survey included illustrations of males and females in a variety of typical engineering workplace settings. The aim of these illustrations (see Figures 3, 4 and 5 below) was to sensitise participants to their own perception biases in relation to gender and authority, and increase their awareness of biases that may be held by others they meet in the workplace.

2   WORKSHOP IMPLEMENTATION

The workshop was held at the University of Technology Sydney during a non-teaching week with 17 students from three universities. Four of these students are female and thirteen are male; which replicates the dominant male participation in the engineering profession in Australia. Four academic staff (other than the workshop presenters) also attended.

The workshop began with an outline of the benefits of workplace learning based on the findings from the study by [1] and continued with a discussion of participants' responses to the pre-workshop questions.

Twelve of the seventeen participants completed the pre-workshop questions (2 female and ten male participants). Responses to these questions indicated whether they had experienced and whether they had observed discrimination, bullying or inappropriate behaviour relating to gender (Figure 1) and not relating to gender (Figure 2). Although a small number of responses, the results from these Figures show that students in Australian workplaces have experienced both gender and non-gender related bully, discrimination or other inappropriate behaviour. The responses also demonstrate that more students are affected through witnessing such behaviour than being the subject of it especially for non-gender related behaviours.

Participants were asked to look at Figures 3a and 3b and for each figure to indicate whether they thought the man or the woman had more authority, or whether they had equal authority. This exercise was intended to illustrate how people commonly make judgements about other people based on appearance. The same individuals are used in both photos and they are dressed alike so that body language is the main difference between them. As indicated in Table 1, although for both figures most respondents said that the man and the woman have the same authority, it is interesting to note that no-one perceived the woman as having most authority in Figure 3b, whereas almost half the participants perceived the woman as having the most authority in Figure 3a. These results illustrated for us, and for the workshop participants, how pervasive is the practice of making judgements about people based on appearance alone.

This theme continues with the remaining figures. Figure 4 shows three people identified as a Project manager, Principal Engineer and Financial Manager of a construction job. Participants were asked to identify which one was the Principal Engineer (Figure 6a) and who was the Financial Manager (Figure 6b). Most participants based their reasoning on what the people in the figure were doing associating the Principal Engineer with action (Person B for example: "*It looks like B*

is explaining something to the other two on the drawing, and the project engineer would be more likely to do that kind of thing"). Person A was identified as the financial manager for example: "*Has the figure, looks like his taking a closer note and calculating possible cost whereas person C isn't as observant. Looks like the shot caller-project manager as his posture shows having the most authority*".). Only one participant asked "*How could you tell from this picture*?"
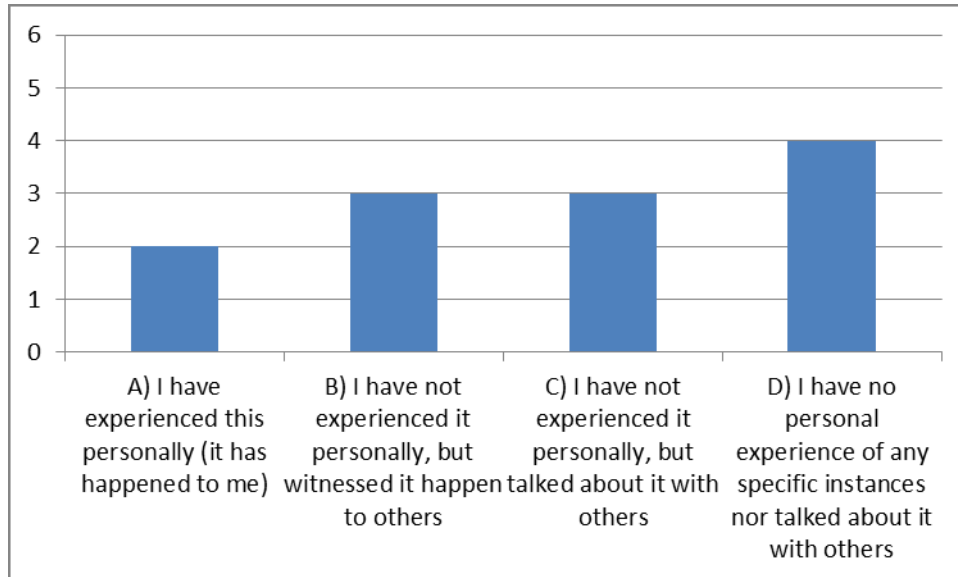

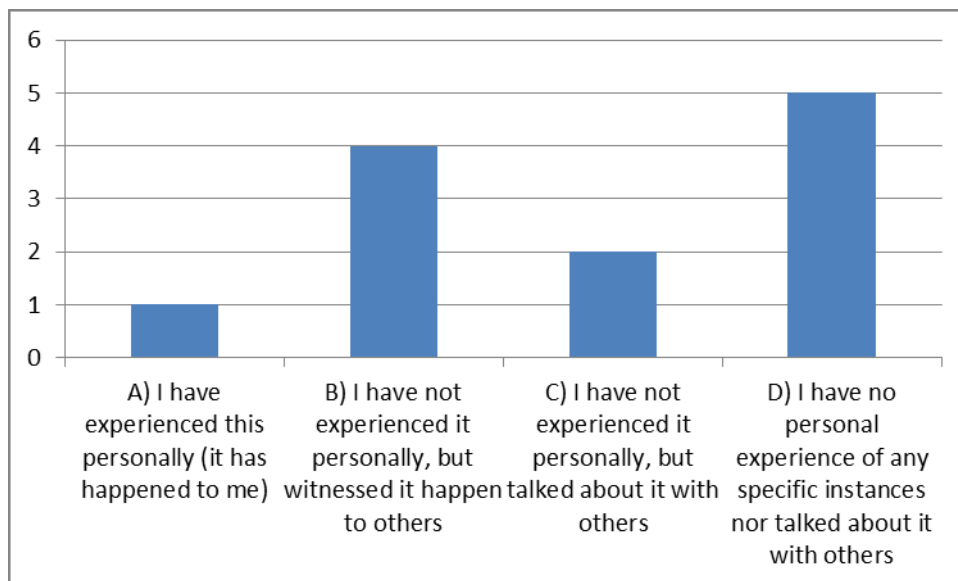Figure 1: Responses to "In regard to work place gender discrimination, bullying or inappropriate behaviour…" (n=12)

Figure 2: Responses to "In regard to other forms of (non-gender) work place discrimination, bullying or inappropriate behaviour…" (n=12)

Fig. 3a.   Fig. 3b

Figure 3: Man and woman on site

Table 1: Looking at the above picture who do you think is more likely to be the person with the most authority?

	In response to Figure 3a	In response to Figure 3b
man	1	5
woman	5	0
they have same authority	6	7

Figure. 4. The picture above shows a conversation between the Project manager, Principal Engineer and Financial Manager of a construction job.

Table 2: Participant responses to Figure 4

	who do you think is most likely to be the Principal Engineer?	who do you think is most likely to be the Financial Manager?
Person A	1	4
Person B	6	2
Person C	5	6

Figure 5. The picture above shows a conversation between a site engineer and the site safety manager.

Participants were also asked to identify which person in Figure 5 is most likely to be the safety manager and which is most likely to be the site engineer. Responses were equally distributed between the man and the woman based on their complexions and artefacts they are holding:

"Site engineer is more likely to have the drawing on paper... than the safety manager";

"Man looks more weatherbeaten, so may be outside more (therefore on-site)....";

"As she showing a list of things that she would be going through at the site, and the site engineer has the plan where he would show her around".

After discussing the responses to the pre-workshop questions, the workshop continued with an introduction to the theory of gendered organisations such as findings of Hatmaker [8] and Powell et al [12]. This was followed by the series of role plays in which students took on different roles as described above in workshop design. Students were invited to reverse typical gender roles in their allocated scenario e.g. the supervisor role being played by a female student.

Debriefing discussions after each role play included participants describing how they felt during the role play and generating suggestions of what alternative actions the bullied student could have taken to resolve the conflict experienced. Participants were advised to reflect on workplace experiences individually and with trusted others (family members, peers and/or university staff), in order to maximise learning during placements.

3   WORKSHOP EVALUATION

At the completion of the workshop fourteen students completed a workshop evaluation questionnaire (3 female and 11 male). On a scale of 1 to 5 with 1 indicating not useful and 5 indicating extremely useful, participants were asked to rate the usefulness of the workshop discussion and the scenarios and role plays. Participants rated the workshop discussion at either 4 or 5 (11 rated 4 and 3 rated 5) indicating that they found the discussion very or extremely useful as indicated in Figure 6a. They also found the scenarios and role plays useful as indicated in Figure 6b.

Participants were also asked to explain what the biggest impact of the workshop was on their thinking or awareness of workplace issues. Responses were mainly about relating to other people, especially supervisors:
"how to react in the workplace";

"how to behave with my boss";

"awareness of how commonly harassment in the workplace can occur";

"approach the boss in a different way";

"always seek help";

"different scenarios and how to deal with them";

"realising we had perceptions before we speak to people";

"if something happened I would deal with it differently now";

"it definitely helped me when thinking of how to act after a negative confrontation".
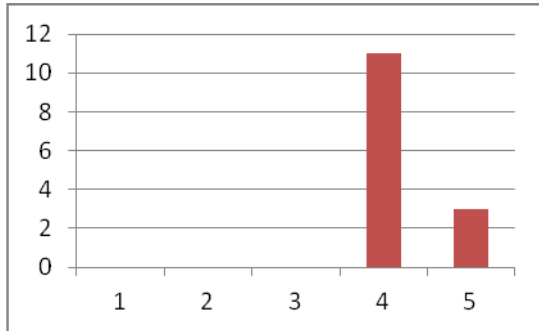
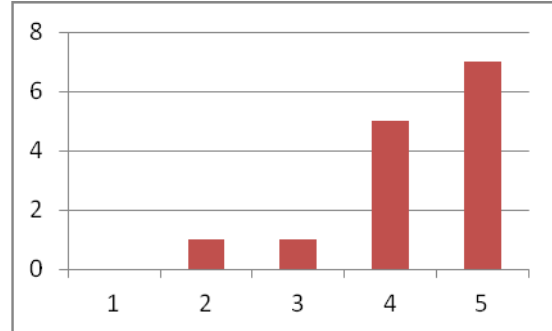*Figure 6a.* How useful were the workshop discussions?   Figure 6b. How useful were the scenarios and role plays?:

4   SUMMARY/RECOMMENDATIONS

Participants in the workshop were sensitised to the importance of visual cues in generating perceptions of people that we haven't met and the impact this has on stereotyping. Through a series of role plays participants explored how to interpret and respond to situations as they arise from their own and other student's experiences.

Participants reported that the workshop increased their capacity to recognise even subtle instances of workplace bullying and discrimination and hence increased their resolve to not participate in, support or promote such behaviour. This awareness also improved their confidence to deal with the negative behaviours themselves and support others that may be experiencing them. The results suggest that many students would benefit from incorporating a series of such workshops in professional development activities.

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