Editorial

Welcome to the third issue of GST. Once again we are delighted to have a wide range of interesting and thought provoking contributions, and we have been pleased with the continued and increasing interest in the journal from different sectors and diverse countries. Many thanks to our authors, reviewers and members of the Editorial Board.

One theme that is raised in several of our contributions is that of intersectionality. This is not a new issue and has long been a feature of gender equality discourses, beginning perhaps most famously with Sojourner Truth's 'Ain't I a Woman?' speech in response to the invisibility of non-white women from the suffragist agenda. From such early feminist activism, through identity politics debates of the 1980s, when issues of race, class and sexuality disrupted the notion of a universal experience of being a 'woman', the importance of recognising and responding to the diversity of women's lives and their multi-layered experiences of discrimination and oppression have been increasingly acknowledged as vital within gender politics, practice and academic research. While the multiplicity of diversity and inclusion agenda are now well established within policy and practice (for example within human resources), it is only more recently that intersectionality as a theoretical perspective for analysis has become more prominent within wider academic discourses. It is appropriate that our discussions about gender, science and technology do acknowledge and explore the diversity of women's experiences and the interplay of gender with other characteristics that can be the source of discrimination and inequality. In this issue we have a number of papers and reviews that reflect this theme, highlighting how gender cannot be seen in isolation from other equality strands.

Two papers demonstrate some of the complexities and ambiguities that the intersectional lens can reveal. Using data from the National Survey of College Graduates , Tao's paper *The Earnings of Asian Women Computer Scientists* analyses the pay gap between groups of women of different ethnicities in the US. Her analysis highlights the importance of avoiding generalizations that construct 'women in SET' as a homogeneous group when exploring issues such as pay inequalities and other statistical indicators.
.

Taking a more qualitative approach, Toren's paper *Stories Women Tell*, provides us with an in-depth insight into how minority status can impact on the career aspirations and achievements of academic scientists. In this study it is the intersection of gender, ethnic origin and low socio-economic status that combine in framing the narratives that these women tell about their careers and lives, and which have clearly led to their under-representation. In the case of these women it is their lack of cultural capital '*not their ethnicity as such, but their different cultural heritage and tradition*' that sets them apart and leads to exclusion (Toren, this issue, p.162)

Bradley and Healey's book, reviewed by Katherine Jensen, continues to explore this theme of intersectionality. The context for this book is that of British trade unions and how issues of gender, race and class combine to limit the employment opportunities of ethnic minority women. As Jensen notes, the '*discursive turn from 'equal opportunities' to 'diversity management' can have some dangerous implications*' with the loss of the social justice agenda in favour of the so called business case, potentially obscuring fundamental structural sources of inequality (Jensen, this issue, p.275).

Another theme raised in this issue is the relevance or limitations of policy in achieving change. In our paper about women returners to SET, *Taking a Life Cycle Approach*, Juliet Webster and I offer a critique of the ways in which UK policy responses have failed to encapsulate the full range of experiences of women returners, focusing instead on somewhat stereotypical notions of the 'returner', which do not adequately reflect the movements in and out of the labour market that characterise many women's lives. We recommend a more nuanced approach, something which current EU discourse more satisfactorily expresses and which we explore in the concluding discussion. We can only hope that in the climate of current UK spending cuts the needs of women returners are not further marginalised.

In optimistic contrast perhaps, the perspectives piece *Women in Science, Engineering and Technology (SET) in Korea* by Kong-Ju-Bock Lee shows the significant impact of high level policy intervention in improving the education and employment prospects of women in SET in Korea. Using terminology such as 'fosterage' and 'utilisation' may sound very mechanistic to Western liberal sentiments. However, the planning and implementation of national strategies for advancing women in SET and 'minimising waste' has clearly been a success story against the backdrop of very conservative social attitudes and women's primary role as family care givers and should be more widely recognised.

Affecting culture change within organisations is one of the biggest challenges in bringing about gender equality in SET, and is a theme explored by Bakian and Sullivan in their paper *The Effectiveness of Institutional Intervention on Minimizing Demographic Inertia*. The authors study the impact of an intervention at one US university, and conclude that the slow pace of change

towards gender equity within academic employment can be mitigated with sufficient input and resources. The challenge, however, is to ensure that the impact of such initiatives is sustained after the funded intervention has ended.

Taking a wider view of culture change, it has long been recognised that the achievement of significant progress towards gender equality necessarily entails changing men's attitudes and behaviours. Influencing the attitudes of future male scientists and engineers is a very important and challenging task that is quietly carried out by many teaching practitioners. Bonnekessen's personal reflective account of her gender studies teaching at a predominantly male engineering college *Teaching Women's Studies to Engineers: Male-Bashing Feminist or Concerned Mother?* is inspiring. The article offers some very practical suggestions as well as an insightful analysis of gender politics in action. Bonnekessen concludes her article with some observations on intersectionality within her own institution.

Paulsen et al's case study *Engineer Your Life* evaluates an intervention at high school level to encourage more girls into engineering degrees, similar in objective to the *Discover!* project described in our previous issue (Watermeyer and Stevenson, Vol. 2 No 1). The aim of the intervention, to debunk negative stereotypes about engineering and emphasise the creative and social aspects of the profession, seems to have been effective in inspiring young women to enter engineering at college level. The case study also raises an interesting issue about the role of careers advisors (counsellors in this case study) within schools. The EYL initiative placed a great deal of emphasis on providing access to information and resources for school based counsellors, something which is greatly needed at a stage when crucial decisions are being made about future careers. For example in the UK it is still the case that most work experience placements are in very highly gender segregated occupations.

Our book reviews once again span a wide selection of issues across the gender, science and technology spectrum. *Beyond the Boys Club*, by Suzanne Doyle-Morris, reviewed here by Esther Haines, draws on the testimonies of successful women scientists and engineers. The book offers practical and helpful strategies to help with career progression, some of which are in fact offered as workshops and development days by the author.

Our final two book reviews are focused on the applications of information technology in the fields of health and education respectively: Balka Green and Henwood' s book *Gender, Health and Information Technology in Context* reviewed by Scout Calvert and Mary Kirk's book *Review of Gender and Information Technology* reviewed by Gill Kirkup.

Finally, on behalf of the GST Editorial Team and Board members I would like to take the opportunity to pay tribute to Ros Wall, who died in April this year. Ros was a lifelong activist who worked tirelessly to support women and girls

in SET, most recently as Assistant Director of the UKRC but prior to that in many other UK and European initiatives. She will be greatly missed.

Clem Herman, on behalf of the editorial team: Jennifer Carr, Elizabeth Whitelegg, Helen Donelan, Barbara Hodgson and Gill Kirkup.
The Open University.