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## **Review of 'Crossing Boundaries: Gender, STEM and Employability Reconsidered'**

*Reviewed by*

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### **REVIEW**

The issue of graduate employability is a high priority for governments across Europe at the moment, but employability skills are often framed as 'neutral' and generic in relation to employment contexts. This neutral framing takes little account of socio-economic factors which influence both employment prospects and organisational relationships for individuals within workplaces. For Higher Education educators, shifting from addressing the issue of employability skills development as a functional activity to situating employability within other contemporary debates about employment, such as that of the gendered nature of employment in sectors such as STEM, can help students to develop a critical approach to their own development. The aim of this seminar was to contribute to the debate, and introduce some critical thinking around notions of employability and gender in the STEM subjects. The seminar showcased current good practice from higher education initiatives that support women in making transitions into STEM employment, and sought to build upon this expertise and to consider ways to embed gender into the debate about employability within higher education programmes. About 40 people, mainly from universities, but also other employability support agencies, took part in a lively and reflective day, and came away with refreshed thinking and renewed commitment to taking forward a gender perspective in employability initiatives within their institutions.

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**The Open  
University**

Barbara Stevens, Director of Student Casework & Projects at The Open University, and a long-time supporter of women in Science and Engineering, introduced the work of the day which began with a keynote talk from Joanne Duberley and Laurie Cohen 'Using career capital theory to reflect on STEM employability'. They illustrated how they have applied career capital theory, which uses Bourdieu's concepts of capital, field and habitus, to conceptualise and contextualise issues of access to, and use of, economic, social, cultural and symbolic capital for individual women developing careers in STEM areas (Duberley and Cohen, 2010). Key findings from the study identified how a lack of access to particular forms of career capital has a negative impact on career progression for women. For example, in particular STEM areas there may be more significance attached to accumulated capital, time within an institution, that women taking time out for family commitments experience as a particular disadvantage. A lively discussion followed about the application of these ideas to different industry sectors, ethnic minorities and the definition of 'linear' progression as a 'norm' for academic and scientific careers. Participants expressed support for the need to research other types of STEM careers using this conceptual framework. Current issues for women graduates entering into STEM employment were illustrated by Jan Peters and Sean McWhinnie drawing on evidence from the [SET to Lead](#) project at University College London. Using statistical evidence and comments from both students and employers, they highlighted issues of gender imbalance within this type of employment. Role models, lack of confidence and recruitment practices were all identified as important issues alongside a tendency for women to lack ambition for leadership. Employability skills development for leadership and other industry roles rarely deals with male and female students differently within undergraduate programmes, but there seemed to be some evidence here to consider offering differential approaches according to need.

Linda Somerville, Director of the Scottish Resource Centre for Women in SET, presenting the [Interconnect](#) project, developed this theme in her talk about the student-centred approach adopted to enhance employability skills for female students. Through providing opportunities to meet female students in similar situations, contact with women professionals as role models and opportunities to act as STEM Ambassadors this project takes a student-centred approach in partnership project with National Union of Students to provide activities designed to develop skills and confidence. Providing such opportunities for women students developed general employability skills as defined by the CBI/NUS (2011) but also, importantly, enabled students to develop their personal networks and increase confidence in themselves or their career choice, vital for the development of career capital and success.

The final two presentations shifted the focus from graduate entrants to STEM careers to women returners to STEM employment and career development. Denise Eaton talked about work that the [WiSET](#) project, based at Sheffield Hallam University, had been doing with women returners, where social networking and confidence building were identified as key elements of success alongside work with employers to facilitate updating of skills through internships and placements for women returners. Getting the right contact was seen as crucial to getting placements arranged in organisations and persuading employers of the benefits to be gained from employing career returners. Social networking and confidence building can also be achieved in an online environment as illustrated in Clem Herman's talk about the virtual worlds and forums used in the Open University's 'Return to SET' course. A five year follow up study indicated the need to develop a more holistic and gender sensitive framework for employability that includes "*individual factors, personal circumstances and external factors*" (McQuaid and Lindsay, 2005).

The seminar participants worked in groups during the afternoon to develop ideas to move the issue of gender, employability and STEM forwards. The groups concluded that when conceptualising employability from a gender perspective it was clear that there was no 'one size fits all' solution, and recommended that an evaluation of employability initiatives by gender should be required for services and placement initiatives within universities. University based initiatives need to make gender issues relating to STEM employability more visible to students and embed gender into the way in which they approach employability within STEM rather than keeping it invisible. Universities are also in a position to act as agents or catalysts for culture change within industry through their relationships with employers. Proposals for ways in which this could be achieved included:

- raising the profile of successful initiatives that have incorporated gender perspectives
- showcasing at university graduate fairs those employers who have positive gender policies
- linking students to gender initiatives run by professional bodies and societies
- developing a coherent and central range of open educational resources to support gender in STEM initiatives and activities.

If they are effectively to support women into STEM careers teachers and university careers staff needed more training about gender related issues. This should include challenging students on stereotypical career choices; developing gender sensitive employability materials; creating schemes to support women in leadership and confidence building; and more effective and proactive use of mentoring and role models

## REFERENCES

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