

Symposia Abstract Book - Main Abstract Book with Submissions and Programme (All Symposia)

Gendered HE Journeys in STEM in Pandemic Times: International Perspectives (0431)

Mon Dec 2021

02:45-15:05

Contributors: Barbara Read, Emma Seddon, Bonnie Slade

Chair: Bonnie Slade¹

Discussant:

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Rationale Text: This symposium brings together a range of papers that are connected to an ongoing ESRC-funded international research project – Gendered Journeys: the trajectories of STEM students through Higher Education and into Employment, focusing particularly on India, Rwanda and the UK. All three countries currently have a severe under-representation of women STEM students in HE, and in relation to the skilled workforce (WEF, 2018), and there is a limited amount of research in India and Rwanda in particular (as in many global south contexts), on gender and STEM issues post-secondary school (for an overview see e.g. UNESCO, 2017). What is particularly under-researched is the gendered journeys of students once they have accessed university, and beyond into skilled employment (UNESCO, 2017, EGHE, 2018). At the 2021 SRHE Conference we are reflecting on the transformations of the sector worldwide since the emergence of the Covid-19 pandemic. This includes an examination of the ways in which pre-existing dynamics of inequality in HE have emerged, changed, receded or intensified since the beginning of 2020. With this goal in mind, we report on emerging quantitative findings from a large-scale survey, and in-depth qualitative interviews with undergraduate and postgraduate students in STEM subjects that have been conducted since the start of the pandemic in all three countries by the Gendered Journeys team. This interdisciplinary team comprises academics from three institutions – the University of Rwanda, the Indian Institute of Management Calcutta, and the University of Glasgow. Our project seeks to explore the fluidity and complexity of gender dynamics from the macro (using large-scale online standardised surveys; secondary statistical data analysis), meso (analyses of gendered policies and practice within institutions and departments) to micro levels (the sometimes very subtle and ambiguous gendered dynamics and interactions between individuals in everyday lived experience). We are taking a robust and collaborative multi-analytical approach (including thematic and feminist poststructuralist discourse analysis) that is led by each national team according to data context, looking at the range of ways in which gender, intersecting with other aspects of identity, experience and social positioning influence students experience a sense of belonging and ‘fit’ with their discipline and with HE life both before and now during the pandemic. Our first paper specifically focuses on the Rwandan data, placed in its specific national sociocultural context. The second paper discusses the challenges of conducting

research online during the Covid-19 pandemic and the ways in which innovative methodologies have helped mitigate some of the difficulties. Our final paper focuses on data with doctoral students in India and the UK, with a focus on the ways in which university status affects complex patterns of inequality in STEM, and we look to the future in relation to equity in the STEM workforce at a time of intense uncertainty within and beyond the academy.

Linked Submissions:

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| Mon 15:05-15:20

| Gender and STEM in HE and Employment: Experiences from Rwanda (0434)

| Jane Umutoni¹, Marie Chantal Cyulinyana¹, Bonnie L. Slade²

| ¹University of Rwanda, Kigali, Rwanda ²University of Glasgow, Glasgow, United Kingdom

| **Research Domain:** International contexts and perspectives (ICP)

| **Paper Abstract:** This paper explores the gendered experiences of female students in STEM at HE and into employment in Rwanda. We present new empirical data gathered through an innovative mixed-methods research project involving a large-scale online standardised survey, in-depth qualitative interviews and focus groups with 20 undergraduate students from purposively sampled public and private HLLs across the country, and class observations. Rwanda’s effort to promote gender equality and women’s empowerment has been widely acknowledged. Commendable achievements have been registered in different sectors including education, which is recognized as the key to sustainable development. The country has thus prioritized a gender inclusive education system as a pathway to boosting its human capital and key to its economic growth and sustainability. Nonetheless, despite advances made at primary and secondary levels of education, access to higher education for females continues to be a challenge. Moreover, even for females who make it to tertiary education, there are gaps in terms of the programmes they enroll into, with most opting for areas traditionally known as female domains, obviously non-STEM fields. Our project seeks to understand why, and when gendered patterns occur in these transitions, and contribute to new knowledge in this under-researched area.

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| **Research Domain:** International contexts and perspectives (ICP)

| **Paper Abstract:**

| Mon 15:20-15:35

Remote Interviewing and Creative Methods in the Gendered Journeys Project: Building Bridges Over Zoom (0445)

Emma Seddon¹, Catherine Lido¹

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Research Domain: International contexts and perspectives (ICP)

Paper Abstract: The Covid-19 pandemic has created methodological challenges for social researchers, primarily for conventionally face-to-face interviews and focus groups. As part of an ambitious mixed methods project, the Gendered Journeys team used creative methods in remote interviews to create a participatory research environment that helped overcome some of the barriers of Zoom. Creative methods enable more participatory research practices, breaking down researcher-researched power dynamics and producing varied and multiple sources of data (Kara, 2015). This paper sets the mixed methods context and discusses two such methods: a hybrid eco-map/timeline that contributed to interviews with postgraduate students in India; and LEGO sets that were sent to data scientists in the UK. Here, we discuss to what extent adding these creative elements to remote interviews aided in building rapport between researcher and participant, and whether engaging in a research practice prior to the interview encouraged participants to reflect on their experiences (Brown and Collins, 2018; Ayrton, 2020; Ivanova, Buda and Burrai, 2020).

| Mon 15:35-15:50

Transitional Troubles: Gendered Dynamics of Postgraduate Students With STEM Backgrounds Entering into Elite Institutions, and Moving into a Precarious Employment Landscape in India and the UK (0505)

Srabani Maitra¹, Saikat Maitra², Barbara Read¹, Manish Thakur²

¹*University of Glasgow, Glasgow, United Kingdom* ²*Indian Institute of Management Calcutta, Kolkata, India*

Research Domain: International contexts and perspectives (ICP)

Paper Abstract: <p style="text-align:justify">In this paper we will be exploring two particular, gendered, ‘transitional troubles’; postgraduate students from STEM backgrounds entering into elite institutions, and the transition to skilled employment in STEM sectors in times of

precarity. Although these topics have an established research literature, the links between them are under-researched, particularly in the Indian context. We will be drawing on in-depth online interviews with over 30 postgraduate students in India and the UK as part of the *Gendered Journeys* project, analysed utilising a mix of thematic and Foucauldian Discourse Analysis. We will be focusing on participants' experience of accessing their institution; perceptions of the security of the academic labour market in STEM fields; their perceptions as to whether gender 'matters' in securing a position, and their own plans for the future in the current post-Covid climate.
