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## Effectiveness of In-Person and Virtual International Mobility Scholars Programme on Career and Professional Development

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**Abstract:** International mobility programmes, both in-person and virtual, aim to build human capital. Though there is evidence of their impact on skill development, there is scant research on career and professional benefits. Moreover, because virtual mobility is a new concept, there has been little investigation into how this mode affects the perceived benefits. Using the lens of human capital theory, this study explores outcomes of in-person and virtual mobility in the Queen Elizabeth Scholars-Advanced Scholars programme, which includes doctoral, post-doctoral and early career scholars. Through interviews with 23 scholars, we explore the perceived impact of the programme, considering mode of delivery, on the career and professional development of scholars. Despite challenges with the unexpected shift to virtual mobility during Covid-19 lockdowns, both in-person and virtual mobility scholars reported benefits to their career and professional development. These results suggest that virtual mobility may be considered as a viable option to enhance the flexibility, inclusivity, and accessibility of such programmes.

**Keywords:** international mobility, virtual mobility, scholarships, human capital.

### Introduction

In an increasingly connected and globalised world, international mobility programmes have become an important tool for skill and career development, and for building connections between individuals, institutions and countries. The United Nations has called on countries to fund these programmes at the post-secondary level, recommending in Target 4b of its Sustainable Development Goals, to “substantially expand globally the number of scholarships available to developing countries” (UN, 2015). As a result, international mobility programmes, where scholars from low- and middle-income countries (LMICs) receive funding to pursue a limited programme of studies, work, or research abroad, have seen significant growth. These programmes aim at developing the skills of scholars who then return to their home country, taking with them increased human capital and new connections abroad. Traditionally, these international mobility programmes were based on models of in-person mobility, where scholars would physically relocate to the host country for a period. However, with Covid-19, virtual mobility has emerged as a form of international mobility that occurs at a distance, facilitated by information and communications technologies. Because virtual mobility is a nascent concept, there is still a lack of clarity about what it entails, and how it differs from other forms of technology-enabled international collaboration. Moreover, research on the impacts of virtual mobility programmes, particularly in terms of mid-term outcomes related to career and professional development, is scant.



From 2017 to 2021, the Queen Elizabeth Scholars — Advanced Scholars (QES-AS) programme provided opportunities for Canadian universities to engage with partner institutions in LMICs and to offer international research mobility and training to help participants grow as researchers, professionals and global citizens. QES-AS aimed to identify and support scholars showing leadership potential and provide them with world-ready research experience through a Canadian university, in collaboration with industry or a non-profit organisation.

Through qualitative interviews this study examines the experiences of QES-AS scholars, particularly the benefits to their career and professional development after programme completion, through the lens of human capital theory. The first section of this paper outlines the conceptual framework of human capital theory and its relationship to the aims of the QES-AS programme, as well as the extant research on in-person and virtual international mobility. The qualitative methods are described, with attention to the sampling strategy and interview process, which supports the validity of the findings. In the results section we explore the career and professional benefits that emerged from the scholar narratives and cross-case analysis of interviews. Finally, in the discussion/conclusion we elaborate on the implications of these findings and the way forward for the design and implementation of flexible, inclusive, and accessible international mobility programmes.

## **Conceptual Framework**

This study applies Becker's (2009) human capital theory to explore the relationship between international mobility (both in-person and virtual) and career development. Human capital is understood as the knowledge and skills that allow an individual to be productive and contribute to socio-economic development. Traditionally, formal education has been conceptualised as the principal driver of human capital development (Schultz, 1971; Becker, 2009). However, in an increasingly globalised world, human capital theory has also been used to understand the importance of intercultural skills gained through international experience, not necessarily within the realm of formal education (King & Magolda, 2005). The attainment of these global skills through international engagement has also been positioned as key to career development (Ng et al., 2011), future employment and income (King & Ruiz-Gelices, 2003). Thus, there are two key suppositions underlying this concept: that international experience can develop knowledge and skills, and that this, in turn, translates into career or professional benefits for the individual.

## **In-person and Virtual International Mobility**

International mobility has generally been conceptualised as the cross-border movement of students or workers, based on the assumption that the individual is physically mobile (UIS, 2006; OECD, 2009). Human capital theory assumes that improved knowledge and skills will lead to increased success and productivity in employment or work, an assumption that underpins many 'theories of change' for international mobility scholarship programmes. The extant research on international mobility scholarship programmes largely investigates the first part of this assumption — assessing the impact of programmes on knowledge and skill development. Studies have explored the impact of international mobility scholarship programmes on a wide range of knowledge and skills, including intercultural competencies (Deardorff, 2006), global citizenship and communication, (Wynveen et al., 2012), and leadership (Dant, 2010).

The concept of virtual mobility in international scholarship programming has become increasingly important in the Covid-19 era, however, despite the growth in virtual mobility opportunities there is sparse research on the impact of such programmes on human capital or career development outcomes. Vriens et al. (2014) defined virtual mobility as the use of information and communications technologies to facilitate international collaboration to achieve the same outcomes as physical mobility without the travel. The Association of Commonwealth Universities note that virtual mobility programmes include “faculty-led, virtual, peer-to-peer learning opportunities / projects across borders and cultures” (ACU, 2020, p. 5). During the height of the pandemic, when physical mobility was limited, virtual mobility became a necessity. As a result, there is growing interest in virtual mobility as a means for more equitable and inclusive access to internationalisation even in a post-pandemic world, where “there is an opportunity to build hybrid models that can reduce costs and provide more flexibility” (Kanwar & Carr, 2020, pp. 331-332). Castro et al. (2020) echoed this sentiment, stating that virtual engagement provides increased access to the benefits of internationalisation, and that such programmes can be a gateway to future physical mobility opportunities for students. Despite the promise of increased access, relatively little is known about the impact of these virtual or hybrid programmes on human capital and career outcomes. Anecdotal evidence suggests that virtual mobility has certain limitations because “cultural immersion and the exposure to the values and customs of a host country cannot be easily replicated in a virtual or online format” (Kanwar & Carr, 2020, p. 327).

## **Methods**

### **Research Methodology**

The interview-based survey data was derived from a study of scholars that participated in the Queen Elizabeth Scholars – Advanced Scholars (QES-AS) programme between 2018 and 2021. Interviews were conducted at least six months after programme completion to gain insights on the medium-term benefits accrued. These interviews aimed at providing scholars with an opportunity to reflect on the programme in light of their career development following programme completion. This paper is based on analysis of the interviews, with the inclusion of demographic data from programme records to provide context.

### **Population of QES-AS Scholars**

A total of 369 scholars from diverse backgrounds, genders and educational levels participated in the QES-AS programme. Of the 369 scholars, 82% were from LMICs. These LMIC scholars were split evenly between women (155 individuals, or 49.8%) and men (155 individuals, or 49.8%), with one additional scholar who chose not to identify their gender (0.4%). Scholars were grouped into early-career (27%) doctoral (51%) and post-doctoral levels (22%).

### **Participants**

International scholars (scholars from LMICs) who completed a baseline survey (n = 208) were sampled for interviews. The research team targeted a stratified sample of 24 LMIC scholars: one male and one female scholar within each of the three scholar streams (doctoral/post-doctoral/early career researcher) and within each of the two areas of study (STEM/Non-STEM, with Non-STEM further divided into Social Sciences and Humanities (SSH) and Health). Scholars were contacted by email in

January 2022 and at least one follow-up email was sent to scholars who did not respond to the initial invitation within two weeks. Where sampled scholars opted out of the interview or did not respond within two weeks, replacements within the same strata/group were randomly sampled and contacted. Solicitation ended June 20, 2022 and the last interviews were conducted by June 28, 2022. In several strata, multiple rounds of sampling and contacting were required due to non-responses, and ultimately 23 international scholars were interviewed. Two respondents were interviewed for each of the 12 strata, however, we were unable to secure an interview with a second scholar from the Male/STEM/Doctoral group. Of the 23 interviewees, 14 were with scholars in-person and 9 through virtual mobility.

### **Data Collection**

We developed semi-structured interview protocols covering three major themes from the baseline surveys to guide discussions around the impact of the programme in relation to: a) collaboration and networking; b) career development; and c) leadership and global competencies. Online interviews were necessitated by the fact that interviewees were located in various countries.

### **Data Analysis**

Working within a constructivist interpretive paradigm (Denzin & Lincoln, 1998), the analysis explored how scholars perceived the impact of the QES-AS programme on their career and professional development after completing the programme, and the factors that facilitated this development. Several rounds of content coding of the transcripts were conducted. Interview data was coded using NVivo and codes were grouped into themes. For this article we specifically explored codes within the theme “Individual benefits.” The final set of codes in this theme were PUBLICATIONS, CAREER ADVANCEMENT, and NEW WORK OPPORTUNITIES. After transcripts were coded, several analytic documents were developed including a cross-case analysis matrix and scholar narratives. These allowed us to identify similarities and differences across interviews based on key categories as well as the frequency of themes across all cases. Additionally, scholar narratives were developed to capture the journey of each scholar in a coherent and sequential narrative form. This allowed for a clearer understanding of academic and career trajectories, as well as the linkages between programme experiences and later career developments.

### **Results**

Human capital theory starts with the assumption that education and global experience can lead to skill development, which, in turn, boosts career outcomes and productivity. In this sample of 23 scholars, all reported skill development as a result of their participation, a finding that supports this first supposition of human capital theory. Of the skills and competencies reported, 14 in-person scholars (100%) and 8 virtual scholars (89%) noted that they had developed or enhanced their leadership skills, with the same numbers reporting that the programme helped them develop academic skills relevant to their career, such as teamwork, research skills, teaching skills, communication skills, or presentation skills.

The second supposition of human capital theory — that newly gained or enhanced knowledge and skills lead to improved career opportunities and productivity — is also supported by the findings of

this study. However, career advancements and professional accomplishments were attributed not only to skill development, as posited in human capital theory, but also to the international networks established during the programme and the reputational benefits of their connection to an international research programme. This was the case for both in-person and virtual participants.

All the in-person scholars and virtual scholars had developed or strengthened networks or collaboration through the programme. Scholars who participated in virtual mobility projects reported that they were able to build and maintain connections with their international counterparts both synchronously and asynchronously, through ICT. Interestingly, technology was also positioned as a significant facilitator for maintaining international networks post-programme completion. Of course, the unexpected shift to virtual mobility programmes during Covid-19 brought certain challenges. Of the Covid-affected scholars in this study, all but one were able to shift to a virtual project, or continue the work they started in Canada back in their home country. However, this required additional work on the part of the scholars and programme administrators to quickly revise project proposals or develop new projects. Additionally, while most of the Covid-affected scholars reported career benefits, they all expressed challenges with the virtual experience, including logistical challenges in conducting their research (often due to Covid-19 lockdowns), more limited community or industry interaction, and the sentiment that a face-to-face experience would have helped to strengthen intercultural competencies.

To illustrate these findings, we begin with narrative portraits of two scholars from the sample. Together, these two narratives elucidate how, through the lens of human capital theory, both virtual and in-person international experiences can support both short-term skills development and subsequent career development, as well as the factors that can either hinder or facilitate this development. Following the two scholar narratives, we present a cross-case analysis of the scholars interviewed. We present two main categories of professional benefits identified through the interviews and discuss the facilitating factors that emerged from the interviews in each of these categories.

### **Virtual Mobility — Ruhi's Story<sup>1</sup>**

Ruhi and fellow QES-AS scholars from her home institution had worked in collaboration with members of the QES-AS institution to develop a detailed proposal for a project on soil management to be conducted in Canada and her home country. However, the project could not be launched as planned due to ongoing Covid-19 travel restrictions. Ruhi and her colleagues had to come up with an alternative project, based in her home country with online collaboration and support from her Canadian counterparts:

I could not come to Canada because of the COVID pandemic situation. Then we discussed how we can modify the work. There was other scholars who were planning to come with me or come right after me. So, we decided to initiate a programme... in [home country] with the guidance from scientists from [Canadian University].

Because of this shift, the project became more community-focused, and multiple stakeholders, including those from the Department of Agriculture, Ministry of Environment, local tea plantation companies, and vegetable cultivating farmers, became involved. With this diverse stakeholder group,

collaboration and communication were crucial. Ruhi noted that she had to find new approaches to communicate with the farmers to gain their trust and confidence.

Though the project was local, Ruhi appreciated the weekly meetings with the Canadian host institution, and the ongoing collaboration with them on the data analysis:

They were guiding us on how to conduct the research...Every Friday we had meetings. That was an official set meeting, but in addition, there were several [other meetings] l... even in this virtual setting... I had to be aware about the needs of the other parties and their working style, their time limitations and other constraints. So, I think even by working virtually, still there is some level of improvement.

Despite being based in her home country Ruhi had several opportunities for outreach. She made several virtual presentations about her research at international events and fora:

I made a presentation at [international meeting], but it was also done virtually because of the COVID situation... In addition, we had some other conferences... Also, I have submitted one for [international congress], which got accepted recently. So, these helped me to present my findings and share my findings with the scientists as well. So, that also contributes, I think, to my professional development ...

Through this project she was able to build strong connections with the various stakeholder groups and strengthened her leadership skills. As a result, she has been given consultancies with intergovernmental organisations to work on similar projects, and her team is working on a new, related project:

Now, very recently, we started another project with [International Group]... and we recently developed another research proposal and submitted for an international grant. Also, I was able to work with [another international organization] during this period. I worked with [them], not particularly related to this [QES-AS] project, but again, the things I did in this [QES-AS] project helped me to gain a name.

Ruhi continued to work on the data analysis from her project with her colleagues from the Canadian host institution, which has now recruited undergraduate students to get involved with the analysis:

...we are continuing our collaborations with the [Canadian University] scientists. We have several data sets generated, and even though I could not go to [Canadian city], through online communications, I supported them in distant mode about different analysis ... So, our collaborations have strengthened, and we will continue our collaborations in the future as well.

She also credits the international collaboration with strengthening her application for a more senior position which she recently obtained, noting that the scoring scheme granted additional points for international research:

...the QES definitely supported me because it's an international project that I got involved, and I was able to make publications out of it. So, these help us to gain more marks and I'm happy to inform that now I am a full professor, a professor on merit basis.

While Ruhi believes she would have had additional benefits if she had travelled to Canada, she notes that she still benefitted from the experience:

But if I happen to come to Canada and work there, I'm 100% sure my confidences might have been developed much more, but I think even the limitations we had, given the constraints, still it is not zero...With the Canadian partners and the partners from [home country] we learned to face these challenges which we would not have been able to do if I come and work in a comfortable environment in Canada. So, I think it's a win-win. So, there's always something that you can gain in a given situation.

With ambitions to continue in academia in a leadership position, Ruhi says she hopes to inspire other women to positions of leadership and envisions a collaborative relationship with her Canadian counterparts to develop a network of mentors. Though she would have liked further opportunities to collaborate with fellow QES scholars during the programme, she believes the programme helped to strengthen her resilience, her leadership and her networks.

### **In-person Mobility — Sam's Story<sup>ii</sup>**

During his three months in Canada, Sam worked on a research study on energy efficient technologies for greenhouses. He worked closely with an industry partner for a one-month period, which exposed him to new technologies in his field of agricultural engineering. He received support and guidance from his Canadian professor, who ensured he had opportunities to see how his research was connected to broader policymaking:

[My Canadian Professor] was bringing me sometimes to the [Canadian city] discussion meetings. So, I was involved in meetings with government officials from [Canadian city] and they how they, I mean, [the] energy policy of the city.

Though Sam had studied abroad in Asia, at the time he started his QES-AS experience, he had not worked or studied in North America. He valued the social connections he made while living in university residence, as well as the exposure to a North American university setting. Speaking about the friendships he developed, Sam shared:

We used to have tea, and discussion and many things.... So that was the kind of [an] awesome time. I feel that apart from the lab, actually, that time I spent in my residence that was also so good to learn many things.

Moreover, Sam believes that the experience of living in Canada and researching at a Canadian university changed his perspectives and understanding about international research particularly in the North American context:

... it is Canadian Queen Elizabeth Scholarship, which actually gives me opportunity to see Canada and to have their exposure in terms of not only research facilities, but also having the industrial exposure, which actually lead me to understand how this system works.

After his three-month stay in Canada concluded, Sam returned to his teaching position at the university in his home country. One of the major impacts of the QES-AS programme was its influence on his continuing research activities at his home university, including the replication of the lab and approaches that he was exposed to in Canada, for which he subsequently received funding:



There are actually three technologies I have been involved in Canada. So, after coming back to [my home country], I have [written] a project funding for the [National Higher Education Commission] and I was successful to get this funding ... Now, I am building the same - we are having the same greenhouse environment, research facility ... and now we are trying to develop the technology ... I have been working at the industry part. And this is because [of], [in] part, that awesome experience over there.

Sam's experience was also fruitful in terms of his research outputs:

... we have been working [on] two journal articles in collaborative and actually, some of the part of that articles are done in [my home country] and some of the part of the research is done in Canada. So, these two articles are published with collaboration [with Canadian Professor]...And I have been involved in one conference at ...[Canadian University in another province] and there was another conference I have been attending at [Canadian University in same province].

Apart from the publications with his professor, Sam met two other QES-AS scholars while in Canada with whom he has collaborated on manuscripts.

Within about two years of returning to his home country, Sam was able to obtain a more senior professor position at his home university. He also shared that with improved teaching and leadership skills, which he attributes to the QES-AS experience, he became more involved in leadership roles at his university:

After coming back to [home country], I really changed the way of teaching ... I got some leadership skills. And due to that leadership skills, I participated in the elections [for the] Academic Staff Association at [Home University] ... just after coming back from [the QES-AS trip] ... and I was successful ... So, I have developed a good reputation...I have participated and won two consecutive times. Currently, I'm also the Executive Staff Association member.

In the future Sam plans to spend some more time abroad to gain further experience which he believes will help him as a professor and in managing his lab, as well as to obtain more research funding to develop new technologies. In the long term Sam envisions himself working at a policymaking organisation where his research could have national impact.

### **Career and Professional Benefits**

While the career and professional benefits experienced by scholars are nuanced and varied, we have conceptualised them in two main categories: Publications and Career Advancement/New Work Opportunities. The prevalence of these benefits, as reported by both in-person and virtual mobility scholars, as well as the attribution given to the QES-AS programme in achieving these benefits, support the assumption which underpins human capital theory: that learning can lead to professional/career development outcomes.

#### *Publications*

Publications, particularly those involving international co-authorship, are an important part of career development for scholars and researchers. Of the 14 scholars that participated in in-person QES-AS projects, 11 (78%) reported they had published academic articles based on their research. Similarly, six of the nine hybrid or fully virtual scholars (67%) had publications resulting from their projects. These publications were seen as an important professional achievement that helped to enhance their

reputation and expand opportunities to disseminate their work. In both groups, scholars also reported additional outputs including newly developed courses, presentations, formal reports for research placement partner organisations, blogs, handbooks, etc., which, although not counted in this category, are noteworthy achievements. Liam (pseudonym used to maintain participant confidentiality), who spent three months in Canada, later published a manuscript on his research in collaboration with professors from his Canadian institution. He was subsequently invited to present at two American universities. Claudia (pseudonym used to maintain participant confidentiality), whose programme was interrupted by Covid-19 and had to continue virtually from her home country, published two papers and has two more in progress, all based on her QES-AS research.

Like many of the scholars in the programme, Liam collaborated closely with faculty from his Canadian institution on his publication. For both in-person and virtual QES-AS scholars, the support provided by Canadian university faculty, who were often co-authors of papers, was highly valued by respondents. In several cases, scholars expressed that this collaboration opened the door to international publication opportunities. For the virtual scholars, who pivoted to virtual projects, the time and space to focus solely on research was cited as an important factor in developing publications. Similar to other Covid-affected scholars, Claudia noted that, despite the challenges, she continued to receive support from her Canadian counterparts. She was able to spend time during lockdowns participating in online webinars and conferences, and to “concentrate [her] time in writing,” adding “I think that those are the positive things of COVID”. Additionally, several scholars, reported participating in capacity building sessions to develop and publish their work. Marta, a virtual mobility scholar, shared the importance of publications as a marker of career development and the role of virtual training during the QES-AS: “that’s what you need to develop in this career – writing, publishing. There was a very beautiful [...] talk [...] on how to publish in journals, and then we talk[ed] about the different journals, how people tend to pay, to how the publication’s faster and how that is not really necessary.” For the majority of scholars, the QES-AS programme, through the mentorship and capacity-building as well as simply the funded time to write, was perceived as a major contributor to their ability to publish their research.

### *Career Advancement/New Work Opportunities*

While many of the participating scholars, particularly the early career researcher and post-doctoral scholars, were employed in academia prior to the programme, several scholars, both virtual and in-person participants reported, experienced career advancement or new work opportunities that they linked back to the skill development, and reputational enhancement they experienced through the programme. Approximately 64% of in-person scholars reported career advancement or new work opportunities that they linked to their experience in the programme. Seven of the 14 in-person scholars reported career advancement within academia, while 2 more shared that the QES-AS experience contributed to new work opportunities outside of the sector, including consultancy work for international agencies, and the founding of a new NGO in partnership with other QES-AS scholars.

While the percentage of virtual mobility scholars reporting career advancement (2/9) or new work opportunities (3/9) is lower at 56%, they reported similar benefits, including advancement within academia, as well as working on new projects with QES-AS research partners after programme

completion. For doctoral and post-doctoral scholars, career advancement included obtaining post-doctoral positions. Both Revathy (an in-person scholar) and Claudia (a hybrid scholar) obtained fellowships, which they link to the connections they made in Canada. For Revathy, her new post-doctoral position is under the Canadian professor she worked with in QES-AS, while for Claudia, her post-doctoral position in the USA was a result of connections she made while working on the QES-AS research. Like other scholars, Claudia also shared that she was able to move up within her academic institution, obtaining a permanent position. Though Bala participated in an in-person programme, he also reported career advancement, crediting his QES-AS experience with getting a new job: “so because of QES and exposure which I got at [Canadian partner university], because of that only I got a job at [University in home country], which is one of the national important institutes of importance in [home country].”

The connection between the QES-AS experience and career advancement or new work opportunities is often attributed to employers’ positive perceptions of international experience, as well as the skills developed during their experience. Ruhi shared how the marking scheme for promotions in her university placed value on international experience, saying:

I applied for that promotion, and when we apply for that promotion, there is a marking scheme. So, there’s a way that we will get evaluated. Having fellowships or working in international grounds, supervising students, these would help us ... So, in that sense, the QES definitely supported me because it’s an international project that I got involved, and I was able to make publications out of it. So, these help us to gain more marks and I’m happy to inform that now I am a full professor, a professor on merit basis.

The skills and perspectives developed through the QES-AS programme are also positioned as factors in career advancement. Kanya, an in-person scholar, shared that her leadership skills had developed as a result of the programme. She was promoted to assistant dean and now leads three research teams of her own, sharing that the experience in QES-AS has shaped how she leads these teams: “I copy the environments when I work with [Canadian University]. We have a small table, roundtable to talk and to chatting, to share the project and ... [help] my younger instructors to step up in their career.” For both in-person and virtual scholars, career advancement and new work opportunities were frequently attributed to programme participation. Through the highly-valued connection to international projects and the skills gained in these projects, both in-person and virtual scholars perceived that the QES-AS experience had a positive impact on their career trajectories.

## **Discussion and Conclusion**

While the experience of living and working abroad cannot be fully replicated through virtual mobility, this study demonstrates that international mobility programmes can contribute to career outcomes, and that these benefits can be accrued through both virtual and in-person modes. Specifically, the study demonstrates how international mobility contributes to publications and career advancement/new work opportunities, for both virtual and in-person participants, through the development of skills and networks. This study adds to the sparse literature on the impact of international mobility scholarship programmes on mid-term career-related outcomes, through the lens of human capital theory.

While this study addresses broad facilitating factors identified by respondents, further research on specific design and implementation features of international mobility scholarships could help to elucidate good practice for both in-person and virtual experiences to ensure that they support career development. Further research should also explore longer term systemic impacts, including the socio-economic and institutional impacts of both virtual and in-person mobility programmes, particularly in the home countries of participating scholars.

Moreover, it is important to note that the cases of virtual mobility examined in this study were not initially designed as such, rather, they were examples of rapid pivots towards alternative modes of delivery in the face of unprecedented disruption caused by the Covid-19 pandemic and are not necessarily representative of virtual mobility programmes designed in other contexts.

This study also has important implications for virtual mobility, particularly in terms of how it is conceptualised in research and designed. In this study we have conceptualised all projects that were undertaken outside of Canada with virtual support for research activities provided by Canadian institutions as a virtual mobility experience. However, it is clear from these interviews that these virtual mobility experiences varied, and the type and intensity of immersion and interaction that can comprise a virtual mobility experience exist on a spectrum. Some scholars had direct contact with a limited number of faculty, working specifically on their research project, while others participated in a wide variety of activities and experiences, including courses, seminars, training sessions, and/or discussion groups, on top of the direct support and mentorship for their research. This diversity suggests the need for a clearer definition of virtual mobility that distinguishes it from international collaboration, as well as a more nuanced taxonomy or categorisation of mobility experiences that considers the type and intensity of interaction/immersion. It also suggests that in the design and implementation of virtual mobility programmes, the intensity, frequency and quality of mentorship, support and capacity building is crucial.

While the likely impact of the pandemic on the design and implementation of the virtual mobility experiences discussed in these interviews is clear, the positive results in the face of the immense and extraordinary challenges of lockdowns point to even greater potential for virtual mobility programmes moving forward. The pandemic strengthened both the role and acceptance of technology for connecting people across the globe and holds promise as an option for increased access and flexibility in international mobility experiences in future. Blended or hybrid mobility options, which include virtual interaction as well as face-to-face experience, may offer a more flexible and accessible form of mobility by leveraging the affordances of both modes.

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<sup>i</sup> Interview conducted 15 months after programme completion; Programme dates: March 2021-November 2021; Category: STEM/Female/Early Career.

<sup>ii</sup> Interview conducted 33 months after completion; Programme dates: June 2019 – September 2019; Category: STEM/Male/Post-doctoral.