

Report on RSB/HUBS-funded “Inclusive Pedagogies in the Biosciences” Conference at Kingston University on 21st April, 2023 by Nicholas Freestone – co-Chair of the Bridging Awarding Gaps in the Biosciences Network of the RSB

On Friday 21st April, 2023 the “Bridging the Awarding Gaps in the Biosciences” Network of the Royal Society of Biology ran the latest in an annual series of conferences on the theme of developing inclusive pedagogical practices in the biosciences in the UK. In an attempt to pay more than lip service to the concept of inclusivity the conference organising team determined at an early stage that the conference should be made as accessible as possible to its potential audience. Thus, the conference was presented in hybrid mode, both online and face to face at Kingston University’s Penrhyn Road Campus. This of course presented the organising team with a new set of technical and logistical issues in which they were given incredibly valuable and expert assistance by Ms Nathalie Leung, Kingston University’s Faculty of Health, Science, Social Care and Education conference organiser. Armed with a conference camera and the now ubiquitous Team links the conference was set fair for a seamless transmission to a widespread and “remote” as well as physical audience.

The hybrid nature of the event did increase the accessibility of the conference in that the total number of attendees was increased from previous events of this type. Feedback solicited after the event unanimously showed that both online contributors and online audience members felt engaged with the conference and further felt they were able to fully interact with the physical audience and various speakers in a meaningful way. In fact, the post-event feedback was universally positive with many respondents taking the time to request that more conferences of this type be held. Equally importantly, a number of respondents reported that they learned new and valuable insights into the principles of equality, diversity and inclusivity in educational contexts and intended to make changes to their own academic practice as a result. This is very gratifying feedback to have received and is the *raison d’être* of the BAG Network.

In terms of the talks given on the day a fantastic start was initiated with a very powerful talk from Professor Winston Morgan of the University of East London. Winston talked very persuasively on “Understanding and Using Anti-Racist Pedagogy to reduce the Awarding Gap”. This very compellingly set the scene for the subsequent talks framing the event in both the theory and practice of developing truly inclusive pedagogies. In particular, Winston highlighted the important differences between student attainment and awarding gaps and non-racism (taking no positive steps to tackle discrimination) and anti-racism (actively working to eliminate discrimination). Following Professor Morgan was Dr Alice Robson (University of Bristol) who discussed decolonising the biomedical sciences curriculum at her institution. Students were enjoined to review the curriculum to see if any themes emerged that were of interest or concern. Additionally, both staff and students were surveyed about their views on decolonising and diversifying the curriculum. Surprisingly, Alice found that academic staff were more cognisant of these contemporary issues than were the students. As a result of this work colleagues at Bristol now benefit from having a guide to Diversification and Decolonisation of the curriculum to aid them in their endeavours. At Aston University Dr Karan Singh Rana also told the meeting that students from a number of universities were asked about their views in terms of whether they thought their ethnic and cultural backgrounds were recognised by their institution. Additionally, a training programme on diversity was developed in conjunction with students to aid academic staff in their practice. This feature, developing staff guides in conjunction with students came to be a familiar theme running throughout the day.

In the final session before lunch student teams from Kingston University (participants in an Academic Peer Mentoring Scheme) and Royal Holloway University of London (involving the PEMENTOS scheme) discussed the use of peer mentoring schemes at both institutions. Both sets of students emphasised that these schemes enabled students to feel a sense of belonging and to be “seen” and “heard”. Consequently, it was hoped that this would in turn increase student engagement and ultimately outcomes.

After lunch the meeting was fortunate enough to benefit from a contribution from Dr Debbie Lewis from the University of West of England who talked about “Scientists like me” where postgraduate students were given opportunities to, and benefit from, developing tutorials and key laboratory skills techniques for undergraduate students. This chimed nicely with the reports from the undergraduate students of the positive benefits of their involvement in peer mentoring schemes.

Two shorter talks, as an appetizer for lunch, were then delivered by Kingston colleagues. First Dr Nigel Page talked about how a deep dive into the data on student attainment revealed significant levels of intersectional effects. He also outlined a strategy whereby low levels of engagement with a Personal Tutor Scheme during the Covid period were greatly improved by the development of a peer support network. Next Dr Pedro Barra talked about his implementation of a two-stage exam strategy. Here students did the typical paper-based, closed book assessment under exam conditions but then followed this up with groups of 3-4 students working together on a briefer version of the original exam. Using this strategy all student attainment increased but interestingly low performers in the first exam increased their marks the most.

The final session featured a number of key individuals with expertise not only in the biosciences but from farther afield and served as a horizon-scanning exercise for the audience to see what changes may be coming down the road towards us in the near future. The first speaker in this section was Professor Ijeoma Uchegbu a Professor of Pharmaceutics from UCL. Professor Uchegbu gave a sensational presentation on equality, diversity and inclusivity, emphasising the fact that regardless of the setting (juries, stock pickers, London managers) a focus on diversity invariably yielded positive results. Ijeoma revealed data that showed that while the awarding gap was low or non-existent in school children aged 11 an awarding gap started to appear at 18 and was, shamefully, a significant feature of university outcomes. As well as outlining the problems, Professor Uchegbu posited some solutions and these included schools and universities being rewarded for removing the awarding gaps and transparent publication of race equality data across the sector. This emphasis on a data-led, over-arching approach is one that the BAG Network is in favour of and was one of the key drivers that led to its original conception and formation.

The meeting next benefitted from the contribution of Dr Emmanuel Adukwu from the University of the West of England, this year’s recipient of the RSB/OUP’s Bioscience Teacher of the Year Award. Emmanuel told us about the work he has undertaken at his institution that resulted in him winning this prestigious award. This included a focus on reducing awarding gaps amongst his diverse student body. Interventions at his institution to bring about the necessary changes to address and tackle this persistent problem included; ethnic minority-focussed student and staff forums, mentoring schemes, decolonising and diversifying the curriculum and awarding gaps being a consistent agenda item in leadership meetings.

Giving a different disciplinary focus, Jordan Buxton, the next speaker from The Work Psychology Group, reported on interventions that sought to widen access to medical education. Six new medical schools opening in 2016 were given the specific remit of widening access by using innovative selection processes. Jordan told us about the work of The Work Psychology Group in evaluating how

well the medical schools had done in diversifying their student intake. Seven factors were identified as being crucially important in meeting these goals and these included targeted outreach endeavours, contextualised offers, leadership teams being onboard with the cultural changes necessary and extra support for “non-traditional” students.

Finally, and again from a non-Bioscience context, Dr Anne Nortcliffe from Canterbury Christ Church University gave the perspective from an engineering environment. Reinforcing previous messages at the meeting, Anne supplied evidence that showed that increasing the diversity of the student body and the workforce ultimately pays dividends for wider society (26% increase in profit reported in some sectors). Showing data from an Engineering Design Growth and Enterprise Dashboard Anne showed how EDI principles were embedded in the School of Engineering that she leads.

The success of the day however was really exemplified by the final session after the afternoon tea-break, where suitably refreshed, the afternoon session’s contributors (Prof Uchegbu, Drs Adukwu and Nortcliffe and Jordan Buxton), were subject to a lengthy and wide-ranging period of questioning from both the online and physical delegates at the event. It was with regret that the organisers of the day had to call a halt to the proceedings such was the energy generated by the day’s discussions. Undoubtedly a success then, the meeting revealed that there is a huge appetite out there for practical tips to improve the teaching of inclusive pedagogies as well as a keen desire for institutions to put in place systems, processes and strategies that will promote and encourage the inculcation of the principles of equity, diversity and inclusivity across all disciplines, not just the Biosciences.