

**The
Brilliant
Club**

Impact Case Study Series

**Come for the mission,
stay for the skills**

**Six lessons from linking researcher development
and fair access**

September 2019



About The Brilliant Club

The Brilliant Club exists to increase the number of pupils from underrepresented backgrounds that progress to highly-selective universities. We do this by mobilising the PhD community to share its expertise with state schools. In pursuit of this mission, The Brilliant Club delivers two programmes:



The Scholars Programme recruits, trains and places doctoral and postdoctoral researchers in schools to deliver programmes of university-style tutorials, which are supplemented by two university trips.



Researchers in Schools recruits PhD graduates, places them as trainee teachers in schools and supports them to develop as excellent teachers and research leaders committed to closing the gap in attainment and university access.

Find out more about our work on our website at www.thebrilliantclub.org.

Research and Impact Series

This **Impact Case Study** forms part of our **Research and Impact Series**, which provides several ways to engage with the work of The Brilliant Club's Research and Impact Department and that of our partners. More information and previous publications in the series are available on The Brilliant Club's [website](#).

About the authors

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Executive summary

The last decade has seen an increased recognition of the importance of teaching quality and professional development of researchers at universities in the UK. Yet, large-scale surveys of postgraduate research students and academic researchers suggest there is demand among researchers for professional development that is currently not being met. For example, 42% of researchers in the Careers in Research Online Survey said they would like to undertake training in teaching or lecturing but had not done so (Vitae, 2017: 30).

This report is the eighth in a series of impact case studies from The Brilliant Club. It draws on the views of PhD researchers to identify challenges for researchers in accessing professional development opportunities and proposes how engaging PhD researchers in outreach work to promote fair university access can develop researchers' teaching practice, pedagogical skills and employability. The report outlines lessons for practitioners in researcher development and widening participation.

The Brilliant Club partners with universities to **link researcher development and fair access** by training researchers to deliver programmes of university-style tutorials in schools.

- In 2018-19, The Brilliant Club recruited and trained **500 researchers** to deliver The Scholars Programme, an academic intervention that supports pupils from underrepresented backgrounds to progress to highly-selective universities.
- Researchers are supported, through training and individualised guidance, to deliver a course to small groups of pupils. PhD tutors **design courses based on their own research**, plan and deliver tutorials in schools and design, mark and provide feedback on assignments.
- PhD tutors receive **tailored, practical training in pedagogy** and develop experience in lesson design and teaching.

Drawing on this experience, as well as surveys and interviews with researchers working as PhD tutors for The Brilliant Club, we put forward six lessons for researcher development:

- 1) **Pedagogical training is in high demand** among doctoral and postdoctoral researchers, but it is not always available. This is despite HE institutions often requiring Early Career Researchers to have such training and accreditation. Programmes that tap into the **pedagogical expertise** of schools and that facilitate **school-university partnerships** can be a valuable addition to the offer that universities make to their researchers.
- 2) PhD students can gain valuable **teaching experiences** beyond teaching on undergraduate courses. Not all PhD students have the opportunity to teach at their institution, and not all teaching skills can easily be learned by teaching undergraduate courses. Experience in **course and assessment design** is often required for lecturer positions, but it can be difficult to develop these skills solely through PhD teaching opportunities within HE institutions.
- 3) When university lecturers have been **trained to teach within the context of widening participation** activities, universities not only make progress with fair access, but they equip teaching staff with crucial contextual understanding that informs teaching practice and helps **close the gaps in student outcomes in the long run**.
- 4) Many researchers are **motivated to make a difference via their research**. By linking researcher development programmes with concrete opportunities for researchers to have a positive impact, universities can increase the value of their professional development offer for researchers.

- 5) **Talking to non-specialist audiences** about their research can – but does not automatically – enable researchers to better understand and communicate their own work. **Support** in how to **break down concepts** and equipping researchers with **techniques for checking that audiences have understood their research** are crucial. The opportunity to design and teach courses about their research to pupils can help researchers to better understand and communicate their own work.
- 6) PhD students are under pressure to plan their post-PhD careers. Positions in academia are limited, so, for many PhD students, it is important to **gain experiences and develop skills** that are relevant for positions **both within and outside academia**. Programmes that **link their academic work with public engagement and teaching**, can help PhD students to develop and qualify for academic and non-academic roles.

The remainder of this report is structured as follows: we briefly discuss the context of researcher development in the UK, before outlining The Brilliant Club's approach of linking researcher development and fair access. Based on surveys and interviews with PhD tutors working with The Brilliant Club, as well as conversations with university partners, we then elaborate on six lessons we have learned from linking researcher development and fair access.

Current challenges for researcher development

Recent years have seen several developments and initiatives that recognise the importance of researcher development. These include:

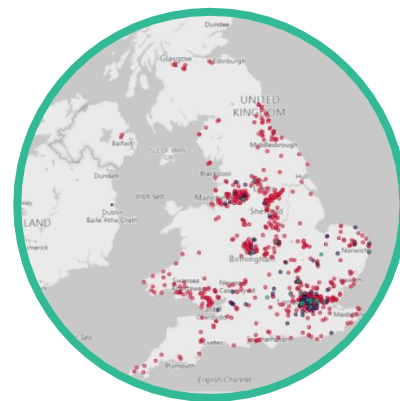
- the **Concordat to Support the Career and Development of Researchers** is an effort of funders and employers of research staff in the UK to improve researcher employment and development (Vitae, 2017)
- at UK universities, there is an **emerging profession of researcher developers** (Freeman and Price, 2015), and the Fifth Annual Researcher Education & Development Scholarship Conference will take place in 2019
- the introduction of the **Teaching Excellence and Student Outcomes Framework (TEF)** shows an increased focus on the quality of university teaching of the higher education regulator and is aimed to incentivise universities to invest in their teaching provision
- the **Wellcome Trust**, who reviewed PhD training provisions in biomedicine, concludes that universities 'are increasingly taking an integrated, cross-institution approach to supporting PhD training' (Coriat et al., 2018)
- **Vitae**, an organisation that supports the professional development of researchers, has published research into development paths of researchers outside of academia that includes advice for universities on how to support research staff developing the skills for work inside and outside academia (Vitae, 2016).

Despite these initiatives to support researchers in their professional development, including their capabilities to disseminate research and teach, challenges remain. Based on the large-scale **CROS survey** of researchers at UK universities that also covers researchers' satisfaction with professional development support, Vitae concludes: 'The apparently widespread appetite for training compared with the relatively few who have undertaken training, such as in career management, may suggest **some mismatch between what is being offered and perhaps what researchers feel they or their institutions are prioritising**' (Vitae, 2017: 30). At the same time, the **PRES survey** of the PhD population in the UK by the Higher Education Academy, finds that among those PhD students that teach at university, only **60% said they were given appropriate guidance for their teaching** (Slight, 2017).

To date, The Brilliant Club has recruited, trained and placed more than 1,600 PhD tutors to deliver The Scholars Programme. This report elaborates on these challenges based on interviews with 15 PhD tutors and researcher development staff from university partners. It also shares the views of PhD tutors to what extent engaging in fair access via the programme can meaningfully help with their own professional development as researchers.

The Brilliant Club's partnerships with universities for researcher development and fair access

In 2018/19, The Brilliant Club recruited, trained and placed 500 doctoral and postdoctoral researchers in schools to deliver **The Scholars Programme**, an academic programme of university-style tutorials, which are supplemented by two university trips. Our **Researchers in Schools** programme – which recruits PhD graduates, places them as trainee teachers in schools and supports them to develop as excellent teachers and research leaders committed to closing the gap in attainment and university access – supported 123 postdoctoral researchers to become teachers this year.



The Brilliant Club's network of partner schools in 2018/19

On The Scholars Programme, researchers are supported, through training and individualised guidance, to deliver a course to small groups of pupils. PhD tutors design courses based on their own research, plan and deliver tutorials in schools and design, mark and provide feedback on assignments. In 2018/19, **500 researchers** from 70 universities across the UK have worked with over **13,000 pupils** on The Scholars Programme in more than 770 schools in every region of the UK. While working towards the mission of the charity, PhD researchers on the programme receive tailored, practical training in pedagogy and develop experience in lesson design and teaching.

The Brilliant Club partners with 43 universities to deliver The Scholars Programme. **Full partnerships** with highly-selective universities include two key components: hosting Launch and Graduation Trips for pupils on the programme, and recruitment and training of researchers. **Researcher Development (RD) partnerships** focus on working with RD departments to ensure that all researchers at the university are aware of the opportunity to become a PhD tutor on The Scholars Programme and are able to access this opportunity.

Pupils taking part in The Scholars Programme between the age of 9-14 study **pre-designed programmes**, created by The Brilliant Club. These programmes are often designed in partnership with universities and other institutions. The Brilliant Club has partnered with institutions such as UCL Engineering, the Courtauld Institute of Art and the University of Glasgow's Q-Step centre. Partners share their academic expertise and Brilliant Club staff provide pedagogical support to turn university-level content into supra-curricular courses for pupils.

We also have **partnerships with non-university academic institutions**, for example the Wellcome Trust, with whom we are mid-way through a five-year partnership. This partnership comprises researcher recruitment and professional development, collaboration on course design including the development of the Key Stage 3 course 'Disease Detectives', and collaboration on developing events. The Wellcome Trust hosted our IAG conference in 2018 and we hope to hold Graduation Trips for The Scholars Programme there in the future. The partnership enables pupils to learn from the expertise of Wellcome Trust researchers and to experience a world class research centre, while researchers receive practical training on pedagogy from The Brilliant Club and develop public engagement and outreach skills.

Six lessons from linking researcher development and fair access

In this section, we draw on 15 interviews with Scholars Programme PhD tutors and university staff, as well as on our experience of mobilising the PhD community to increase the number of pupils from underrepresented backgrounds that progress to highly-selective universities.

For each of the six lessons, we first outline a challenge and then consider the experiences from Scholars Programme PhD tutors to draw conclusions about ways in which the challenge can be addressed.

Lesson 1: Pedagogical training is in high demand among doctoral and postdoctoral researchers, but it is not always available. This is despite HE institutions often requiring Early Career Researchers to have such training and accreditation. Programmes that tap into the **pedagogical expertise** of schools and that facilitate **school-university partnerships** can be a valuable addition to the offer that universities make to their researchers.

The challenge

Only 60% of PhD students that teach at university said they were given appropriate guidance for their teaching, according to the large-scale PRES survey of the PhD population in the UK (Slight, 2017). This indicates there is large potential to better equip PhD students for their teaching commitments. The Careers in Research Online Survey, a survey covering researchers at all career stages, found that 42% would like to undertake training in teaching or lecturing but had not done so (Vitae, 2017: 30).

A (non-representative) survey of 144 researchers working as Scholars Programme PhD tutors shows a similar pattern: while a large majority had positive views on the general professional development support from their university and supervisor, fewer researchers are satisfied with support for developing teaching skills. Some 40% of PhD tutors did not think that their university has good processes for developing teaching skills. And only 39% agreed with the statement 'I have received high quality teacher training from my university'.

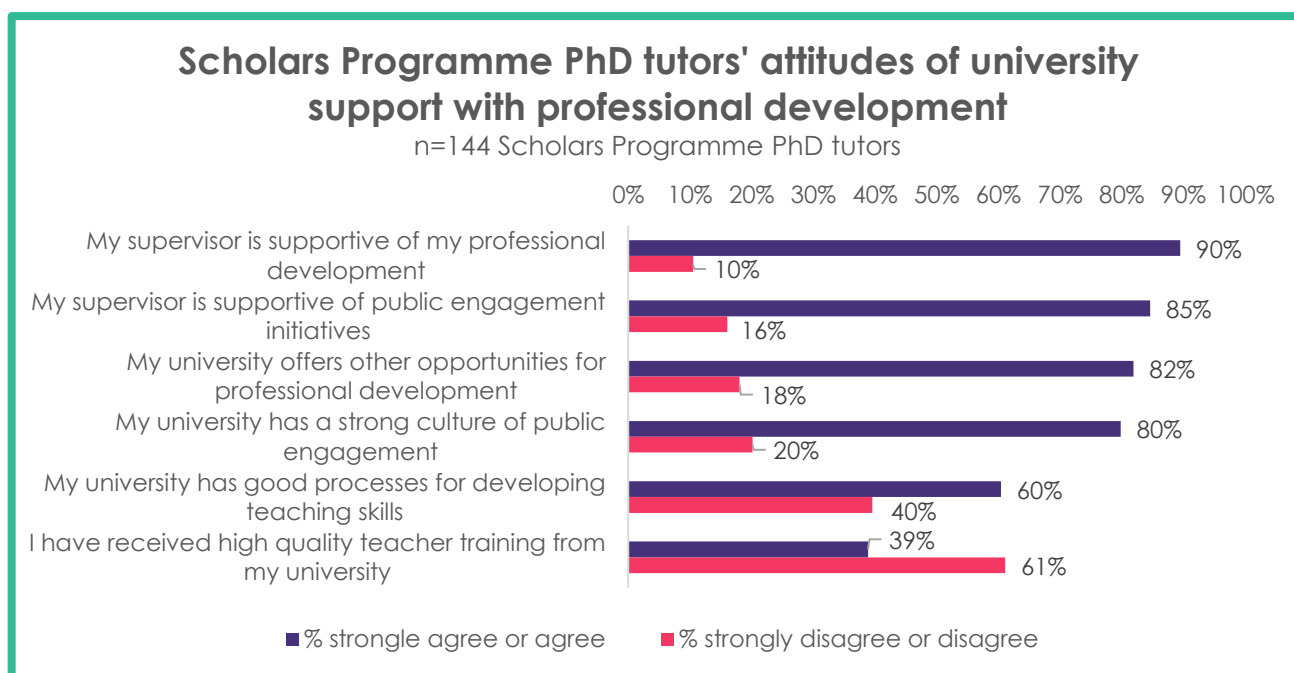


Figure 1: Survey with Scholars Programme PhD tutors in Spring 2018. Answer options were on a four-point scale from 'strongly agree' to 'strongly disagree'

Many PhD students are offered some teaching experience during their PhD. However, access to this experience is not guaranteed, and the amount and level of teaching opportunities available varies significantly between institutions. Most institutions offer some training in teaching, but this varies considerably between universities and departments, and is sometimes only available to PhDs who teach over a certain number of hours. Training can range from a half-day session on the basics to a course which leads to a formal teaching qualification such as a PG-Cert in Higher Education and to application for Associate Fellowship of the Higher Education Academy (AFHEA). Some universities provide support for an application for AFHEA, but do not have a formalised process in place. At some universities, it is up to individuals to pursue and fund an application for AFHEA.

What we have learned from Scholars Programme PhD tutors

Where training was offered, some of the PhD tutors interviewed felt that the training provisions offered by their university covered all elements of researcher development and fully met their needs. Others commented that training could feel like a 'box ticking exercise' and did not prepare them sufficiently to teach undergraduates or for their future career. Where issues were cited, this included short training sessions, lack of follow up or development throughout their time teaching, lack of formal qualification or accreditation and lack of training on teaching methods, assessment and marking.

Before working as a PhD tutor with The Brilliant Club, my teaching experience was minimal. The Brilliant Club ensured that I completed **training in pedagogic approaches and techniques**, which meant that when I entered schools for tutorials I was well prepared and able to **disseminate knowledge effectively**. During tutorials my confidence grew and I discovered what worked for me and my pupils, given the context and the content of the course. My most valued experience has been **constructing a bespoke course that revolves around my research**. I believe this has all contributed to me recently being offered a Lecturer position at a university in London, who were impressed by **my reflections on course creation** and **moderation**, my **marking knowledge** and **teaching competency**.

James Nixon, Goldsmiths, University of London, Scholars Programme PhD tutor

Learning outcomes from Scholars Programme Training Weekend. PhD tutors were asked to indicate agreement to statements upon completing the Training Weekend n= 250 PhD tutors in 2018-19

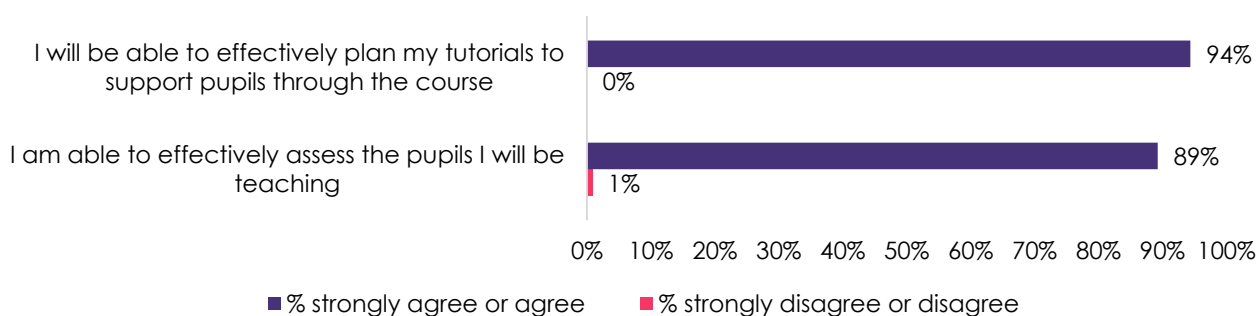


Figure 2: Survey with Scholars Programme PhD tutors in Autumn and Spring terms of 2018-19. Answer options are on a five-point scale from 'strongly agree' to strongly disagree'

All Scholars Programme PhD tutors are automatically enrolled on The Brilliant Club's Researcher Development Programme. This is the programme of training and support which equips researchers to undertake successful placements with pupils. The Researcher Development Programme is made up of a series of modules that cover core pedagogy, safeguarding and continuous professional development sessions. In addition, the Researcher Development Programme also includes the advice and guidance that Brilliant Club staff will give to PhD tutors as they prepare for placements and during the design of course handbooks.

Advance HE (formally the HEA) offers accreditation of individual university teachers in the form of a range of fellowships suitable for academics at different stages of their career. The awarding of a fellowship is contingent on applicants providing evidence that they have met the relevant aspects of the UK Professional Standards Framework (UKPSF). It is increasingly common for universities to include the appropriate level of AdvanceHE fellowship as a desirable or essential criterion on person specifications when advertising posts for Early Career Researchers.

Associate Fellowship provides individuals, such as early career researchers, with an opportunity to be **recognised for their successful and effective teaching**, learning support methods and student learning in higher education aligned to the UKPSF. By becoming an Associate Fellow, you will be recognised nationally and join an expanding global professional community in pursuit of **teaching excellence**.

Louise Lumsden, Head of Fellowship, Advance HE

Our Researcher Development Programme does not offer formal accreditation for the training that Scholars Programme PhD tutors undertake, but the pedagogical training that we provide and the work that PhD tutors do in schools can be used, alongside undergraduate teaching or supporting learning, as evidence for an application for Associate Fellowship of the HEA.

My experience as a PhD tutor on The Scholars Programme has played a large role in my successful application for an **Advance HE Associate Fellowship**. Having designed my own course, thinking in depths about assessment, delivering the course to a varied group of pupils in six different schools – these were all **experiences from The Scholars Programme that I could refer to in my application**. The labour market in academia is competitive, so I am aware that having certification from Advance HE can make a difference to applications for lecturer positions.

Emmanouela Kampouraki, Newcastle University, Scholars Programme PhD tutor

For most of our PhD tutors, the appropriate level of fellowship is the entry level Associate Fellowship. This requires that they provide evidence of teaching and assessment, including knowledge of pedagogy and teaching techniques and an awareness of the educational landscape including widening participation and issues relating to diversity in HE. For some PhD tutors, a Fellowship, which is the next step up, is the appropriate level. This requires evidence of a more substantive teaching and learning role.

Lesson 2: PhD students can gain valuable **teaching experiences** beyond teaching on undergraduate courses. Not all PhD students have the opportunity to teach at their institution, and not all teaching skills can easily be learned by teaching undergraduate courses. Experience in **course and assessment design** is often required for lecturer positions, but it can be difficult to develop these skills solely through PhD teaching opportunities within HE institutions.

The challenge

It is common for PhD students to be offered some teaching by their institution whilst they are studying. Typically, teaching positions for PhD students are those of Assistant Lecturer or Graduate Teaching Assistant and other similar roles. These opportunities are available for PhD students at most, but not all, institutions. At institutions where teaching is available, it is not available to all researchers and there is sometimes a competitive application process for teaching roles. There are, therefore, researchers who do not have the opportunity to teach at their institution during their PhD.

The teaching roles offered to PhD students usually involve delivering seminars and occasionally lectures on undergraduate courses that have been convened by other faculty or department members. The experience researchers gain in these roles often includes teaching and marking, but does not include convening a course, selecting course materials or creating assessments.

Early career researchers seeking teaching positions can find themselves competing for post-doctoral roles with others who have experience in course convening and assessment design. The limited scope of their teaching experience whilst studying for a PhD can put post-doctoral applicants at a disadvantage in the competition for such roles.

What we have learned from Scholars Programme PhD tutors

Working as a PhD tutor offers experience in course and assessment design and the preparation of resources. This provides an element of experience that is often not offered to PhD students in their university teaching and can help to prepare them for future roles which require them to convene undergraduate courses.

The most significant element of teaching that I have learnt whilst working with The Brilliant Club is developing the actual courses. Whilst it sounds straightforward in principle, **designing the overall structure and identifying “what” you want to teach and “why” are key facets that need to be thought about in depth.** The sessions on the training weekends helped me develop this skill in depth. **I have gone on to write modules on courses at university.**

Allan Booth, University of Nottingham, Scholars Programme PhD tutor

PhD tutors receive support and training in developing a course based on their research. They submit and receive feedback on a course design template which includes a course rationale, baseline and final assignments and activities and assignments for each tutorial. They then create and receive feedback on a course handbook which contains the resources and activities for their course, as well as an assignment and tailored mark scheme. PhD tutors receive pedagogical training and support at a two-day training weekend prior to submitting their handbook.

The courses are delivered to pupils aged 14-17 in groups of six in university-style tutorials which take place in schools. Tutors have the option of being observed and receiving feedback on their teaching and can incorporate outcomes of the feedback in their course handbook for future terms.

Teaching with The Brilliant Club has been an enjoyable opportunity to **develop hands-on teaching experience** whilst still doing my PhD. Many PhD students gain teaching experience through assisting on undergraduate courses, **but The Brilliant Club goes much further by requiring you to design your own course** and bring it to people who have little or no prior experience with your subject.

Michael Greaves, University of Manchester, Scholars Programme PhD tutor

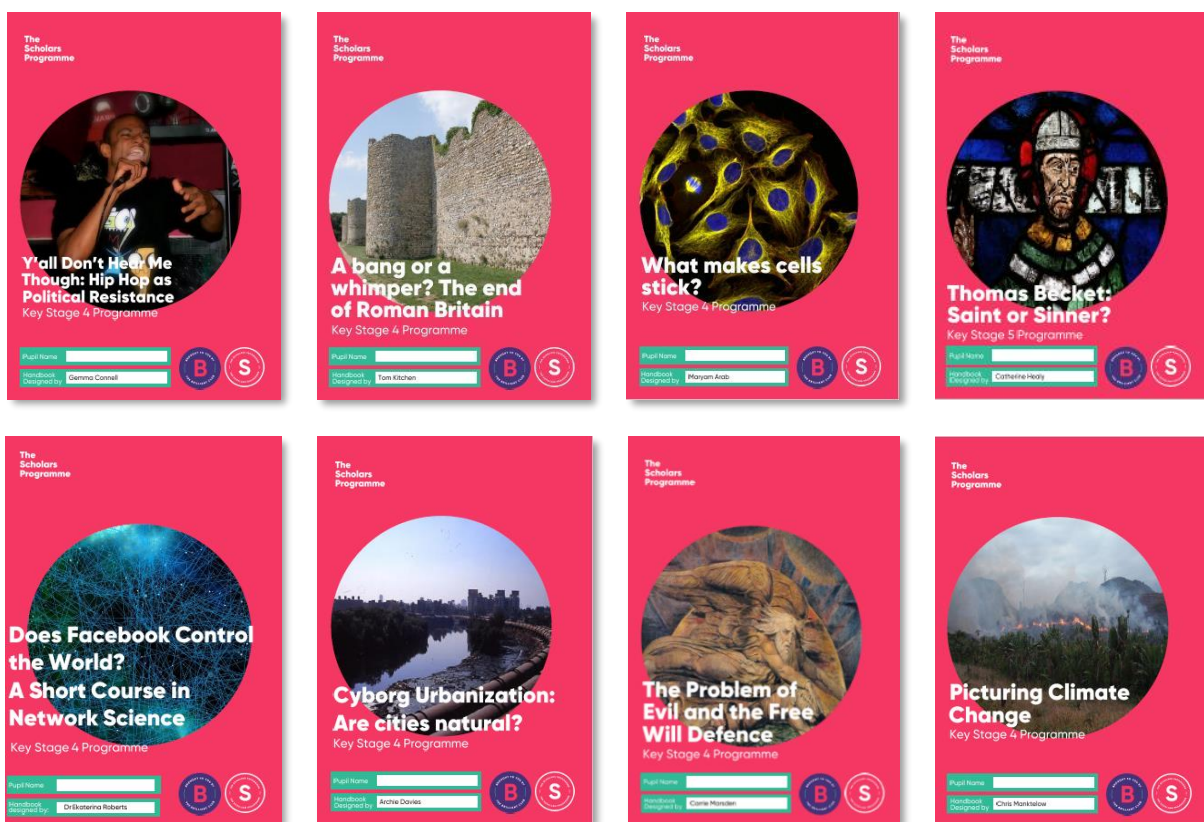


Figure 3: Examples of course handbooks designed by PhD tutors on The Scholars Programme. Courses are based on tutors' PhD research, and Scholars Programme staff support PhD tutors with course design.

I talked about my experiences on The Scholars Programme in my **interview for my current teaching role** at the University of Leicester. My supervisor was **impressed by the fact that I had designed my own course.**

Amy de Bruycker, University of Leicester, Scholars Programme PhD tutor

Lesson 3: When university lecturers have been **trained to teach within the context of widening participation** activities, universities not only make progress with fair access, but they equip teaching staff with crucial contextual understanding that informs teaching practice and helps **close the gaps in student outcomes in the long run.**

The challenge

Researcher development and fair access do not have to be competing priorities in higher education – they can be complementary – but nevertheless, these activities can often take place in silos. The separation of the two activities is detrimental to both priorities: if researchers develop their teaching skills in isolation from the fair access conversation, they risk limiting their ability to support and communicate effectively with a diverse group of students. At the same time, universities miss a trick in their widening participation work if they do not mobilise the enthusiasm and expertise of their researcher community.

What we have learned from Scholars Programme PhD tutors

The tutor experience raised **the issue of awareness** for me – I didn't realise that **people didn't know about university or that they could go.** In my family, it was always a given that I would go to university and I didn't know before that some people didn't know about this as an option. University teachers can be very university-centric and can have the sense that students just appear at 18. Working on The Scholars Programme helps to understand the system that they came from. Universities need to be more diverse and this means **bringing in people who have previously been on the outside.**

Amy de Bruycker, University of Leicester, Scholars Programme PhD tutor

Widening participation is not just about getting those from underrepresented backgrounds through the doors of universities. It is about ensuring that once they are there, they feel welcome and are able to succeed. It is important that those teaching in universities understand the barriers to fair access and are able to develop strategies to overcome them. This is not only a pastoral issue: students should feel welcome in their learning environment. Engaging with pupils from underrepresented backgrounds can enhance researchers' understanding of the wider societal context in which universities operate and can enable them to adopt inclusive strategies that take into account the backgrounds and prior experiences of diverse groups of students. This can help researchers become better and more versatile teachers, allowing them to build their academic CVs.

Motivational outcomes from Scholars Programme Training Weekend. PhD tutors were asked to indicate agreement to statements upon completing the Training Weekend n= 250 PhD tutors in 2018-19

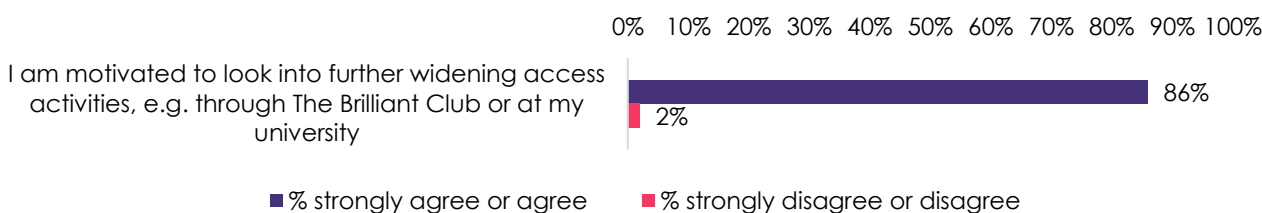


Figure 4: Survey with Scholars Programme PhD tutors in Autumn and Spring terms of 2018-19. Answer options are on a five-point scale from 'strongly agree' to strongly disagree'

By engaging researchers in fair access early on in their academic careers, universities can foster a fair access culture among their academic staff. The PhD tutor alumni profile of David Brydan on the next page illustrates this point. David became involved in widening participation work as a PhD tutor on The Scholars Programme during his PhD studies and stayed involved as he began his academic career. Furthermore, an early approach of engaging academic staff in widening participation can keep researchers committed to the ideals of widening participation more widely. Some 86% of Scholars Programme PhD tutors agreed with the statement 'I am motivated to look into further widening access activities, e.g. through The Brilliant Club or at my university' after taking part in their Scholars Programme Training Weekend.

Alumni PhD tutor profile: David Brydan

Current role: Lecturer in the History of Modern International Relations, King's College London



Scholars Programme PhD tutor from: 2014-15

PhD university: Birkbeck College, University of London

The Scholars Programme course: A World Without Borders: Internationalism and International Organisations since the First World War

Qualifications

'I completed a Certificate in Teaching in Higher Education at Birkbeck in the third year of my PhD which led me to HEA Associate Fellowship. I used examples from The Scholars Programme in the assessments for the course at Birkbeck. The teaching qualification I gained was really useful, and now I have been involved in shortlisting I realise how important this is – it is one of the standard criteria for academic posts.'

The Scholars Programme

'My training on The Scholars Programme has informed my wider teaching practice. There is not much difference between teaching small groups of year 10s and small groups of undergraduates other than pitch, so I didn't see my experience on The Scholars Programme as being significantly different from university teaching. The most useful practical thing in my Scholars Programme training was how to take your slightly complicated research and make it accessible for a Year 10 audience.'

Widening Participation

'I learned about widening participation whilst working as a tutor. The school I taught at was one that only went up to GCSE; I don't think a lot of the pupils went to university. For some pupils, doing The Scholars Programme was clearly very transformative. Talking to them about university gave me a real perspective on what they perceived as barriers to university and why they didn't think that university was for them.'

Widening participation is not necessarily part of researcher development for PhD students – it is something that they can seek out but it is seen to be central to their development as researchers. I think widening participation should be taken much more seriously across the HE sector and everyone in academia – it should be included in the academic training for PhD students.'

Lesson 4: Many researchers are **motivated to make a difference via their research**. By linking researcher development programmes with concrete opportunities for researchers to have a positive impact, universities can increase the value of their professional development offer for researchers.

The challenge

Sometimes – despite their appetite for professional development – researchers can struggle to prioritise engagement with professional development opportunities that are offered.

As university researcher developers, we face a challenge in helping researchers to **recognise the benefit in developing skills in areas that are not immediately essential for their everyday research**. We need to keep finding ways to show PhD students that gaining experiences outside of their day-to-day research has **long-term value**, and also help ensure the efforts they make are **acknowledged by their colleagues, and the wider institution**.

Amy Moore, Head of Doctoral Student Development, King's College

Activities that allow researchers to have an impact via their research, while providing them with professional development, can motivate researchers to engage in their university's researcher development offer. In essence, because these activities enable researchers to justify this non-research activity to themselves as 'worth it'.

There is potential for universities to engage more researchers in researcher development by linking it with widening participation activities. But approaches that combine both need to ensure that they bring to full use the academic expertise that researchers can share and provide researchers with the training and support to make their engagement impactful.

What we have learned from Scholars Programme PhD tutors

Researchers joining The Scholars Programme each have their own motivation for why they want to become a PhD tutor. For example, some join to boost their employability skills, some to develop a professional network in the PhD community. But there is a strong pattern once they have been on the programme that they view the two main benefits as having an impact on pupils and gaining teaching experience. We surveyed 427 PhD tutors who worked on The Scholars Programme between 2017-18 and 2018-19 about what they perceived to be the main benefits of working with The Brilliant Club. Figure 5 shows that 96% of tutors named impact on pupils as a key benefit, 82% teaching experience and 79% identified both. Similarly, 96% of those who saw teaching experience as a key benefit also named impact on pupils.

Evaluation of PhD tutors on their key benefits working as a Scholars Programme PhD tutor n=440 PhD tutors in 2017-18 and 2018-19

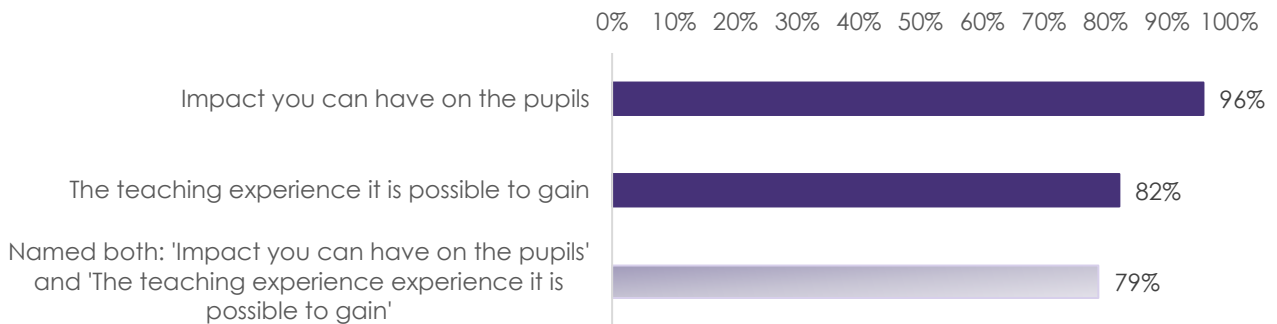


Figure 5: Survey with Scholars Programme PhD tutors in 2017-18 and 2018-19. PhD tutors were provided with a list of potential benefits and asked to tick those that applied most.

In interviews we also asked PhD tutors about their motivations for joining The Scholars Programme. Similar to what we see in quantitative surveys, PhD tutors in the interviews stressed that impact on pupils was their primary motivation. For some, awareness of the training benefits and learning about pedagogical approaches only came throughout the programme.

My motivation to join The Scholars Programme was strongly linked to my experience **growing up in a working-class family**. There were a few inspirational teachers who had a big influence on my education, so I also wanted to be of **help to pupils** once I became able to do so. **The benefits for my own professional development became clear to me only after becoming a PhD tutor**. My greatest benefit has been to build a network with other tutors where I can share ideas and hear of the experiences of other researchers.

Wayne Cronin-Wojdat, Glyndwr University, Scholars Programme PhD tutor

In our experience, the PhD community is highly motivated to have a positive impact via their research. In surveys conducted with PhD tutors they name 'impact you can have on pupils' as key benefit of working with The Brilliant Club, ahead of income and impact on employability, and 96% of tutors agreed with the statement that 'Through The Scholars Programme, I feel like I have made a positive impact on my tutees through my research'.

I have no doubt at all about the **benefit of combining researcher development and widening participation**. It seems like one of the answers to the issue of widening participation is to put people who have experienced a broad range of schools into universities so that they have an understanding of the issues that students and prospective students might have faced.

Sophie Bankes, The Open University, Scholars Programme PhD tutor

Lesson 5: Talking to non-specialist audiences about their research can – but does not automatically – enable researchers to better understand and communicate their own work. **Support** in how to **break down concepts** and equipping researchers with **techniques for checking that audiences have understood their research** are crucial. The opportunity to design and teach courses about their research to pupils can help researchers to better understand and communicate their own work.

The challenge

Public engagement is a priority for universities, and PhD students are often able to find opportunities to communicate their research to lay audiences. These opportunities can be beneficial for researchers, universities and for the audiences and are an important channel of communication between the academy and the wider public. In our survey with 144 Scholars Programme PhD tutors, 80% agreed with the statement 'My university has a strong culture of public engagement' (cf. Figure 1).

The importance of public engagement is highlighted in the Research Excellence Framework (REF): the 'Impact' section carries a weighting of 25%. This assesses 'the "reach and significance" of impacts on the economy, society, culture, public policy or services, health, the environment or quality of life that were underpinned by excellent research conducted in the submitted unit' (REF 2021 Guidance on Submissions, 2019: 7).

However, simply giving PhD students and other researchers the opportunity to be involved in public engagement work does not mean that they will be able to communicate their research effectively. Public engagement is likely to be more effective and meaningful if researchers are equipped with the tools to communicate their work to lay audiences. Engagement with the public can be enhanced if the researchers communicating their work are trained in techniques, such as, checking that audiences understand what they are saying and how to break down concepts for a non-specialist audience.

What we have learned from Scholars Programme PhD tutors

The training researchers receive as PhD tutors on The Scholars Programme, and their experiences communicating their research to school children, allow them to develop strategies to help those outside of academia to understand their work and its significance.

Trying to **explain your research to a group of school kids** is probably the best indicator on **whether you understand your subject or not**. Working with The Brilliant Club has tried and tested my ability to communicate my research to the public, a service all academic researchers should do.

Connor Rogerson, University of Manchester, Scholars Programme PhD tutor

This is important for researchers' own development – having to articulate their research to a non-academic, non-specialist audience can help to develop communication skills. PhD tutors have told us that articulating their research in this way also helps them to consider the wider relevance of their work and encourages them to convey this relevance to pupils, including how their research impacts the wider world. Gaining confidence and seeing that your public engagement works can, in turn, generate new ideas and motivation for further engagement: 81% of 250 PhD tutors we surveyed in 2018-19 agreed with the statement that following Training Weekend 'I am motivated to deliver additional public engagement activities through my university or other organisations' (cf. Figure 6).

Working with The Brilliant Club has forced me to **look at my research from an outsider's perspective** and to ensure that it's **accessible for non-experts**. I think this is particularly important in my area of research (climate change), and it's taught me a lot about how to engage young people in this area of science. I'm certain this has improved my employability - **I feel so much more confident talking about my research now.**

Sarah Wilson Kemsley, University of East Anglia, Scholars Programme PhD tutor

**Motivational outcomes from Scholars Programme Training Weekend. PhD tutors were asked to indicate agreement to statements upon completing the Training Weekend
n= 250 PhD tutors in 2018-19**

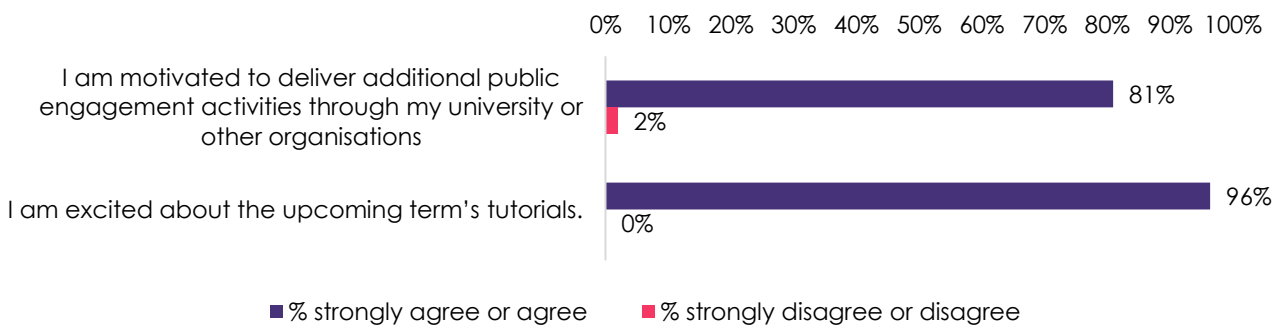


Figure 6: Survey with Scholars Programme PhD tutors in Autumn and Spring terms of 2018-19. Answer options are on a five-point scale from 'strongly agree' to strongly disagree'

Teaching through The Scholars Programme provides a really useful opportunity to understand **how to break down complex ideas** and deliver these to others, whether these be Year 5 pupils or interested observers. It encourages tutors to think on their feet and respond to unexpected questions. It has helped me to **discover some interesting areas of research to pursue**. I have taken my research out of the university and thought about how to make it interesting and relevant to **take it into the heart of communities** in London.

Sophie Bankes, The Open University, Scholars Programme PhD tutor

Lesson 6: PhD students are under pressure to plan their post-PhD careers. Positions in academia are limited, so, for many PhD students, it is important to **gain experiences and develop skills** that are relevant for positions **both within and outside academia**. Programmes that **link their academic work with public engagement and teaching**, can help PhD students to develop and qualify for academic and non-academic roles.

The challenge

Professional development opportunities in universities often focus on preparing PhD students for careers within academia. However, a significant proportion of PhD students will not progress to a university career, either through choice or due to the limited number of jobs available in the sector (Vitae, 2016). Many still wish to disseminate their research to a wider audience.

Research by Vitae into the reasons for researchers leaving academia showed that '[a]round three-quarters [who left were] looking for better long-term employment prospects, better job security and not having to work on fixed term contracts' (Vitae, 2016).

It would be nice to have more information on **career options from earlier on**. We live in a very competitive world where CV building is important and academia is very competitive. It would have been good to be given a clear idea of what to focus on in terms of future plans – for example, it would have been useful to have some clarity on **the relative importance of publications vs teaching experience from a CV perspective**. I would also like to have been made aware of more options outside the academy – it seems like they are afraid to admit that these exist in case people leave!

Amy de Bruycker, University of Leicester, Scholars Programme PhD tutor

It can be hard for many PhD students to foresee where their careers will take them long term, so it is important for them to access development opportunities that help them to acquire skills and experiences relevant for work, both with and outside of academic research.

What we have learned from Scholars Programme PhD tutors

Between 2017-18 and 2018-19, we surveyed 427 Scholars Programme PhD tutors about their attitudes regarding the professional development benefits of their work as PhD tutors. As Figure 7 shows, 92% thought of their work as an important part of their wider professional development, and 84% agreed with the statements that 'Working as a Brilliant Club tutor has boosted my employability skills' and that 'What I have learned as a Brilliant Club tutor would help me in teaching undergraduate courses at university.'

In terms of **my personal and professional confidence** it has been huge. I now feel much more prepared and confident when I walk into a school and able to think on my feet and deal with the many difficult situations that I might encounter. I now feel much more confidence about teaching most age groups anything. I have also become **more confident in terms of public speaking and public engagement** and more aware of some of the issues in the education system.

Sophie Bankes, The Open University, Scholars Programme PhD tutor

Attitudes of researchers on their professional development working as PhD tutors on The Scholars Programme n=427

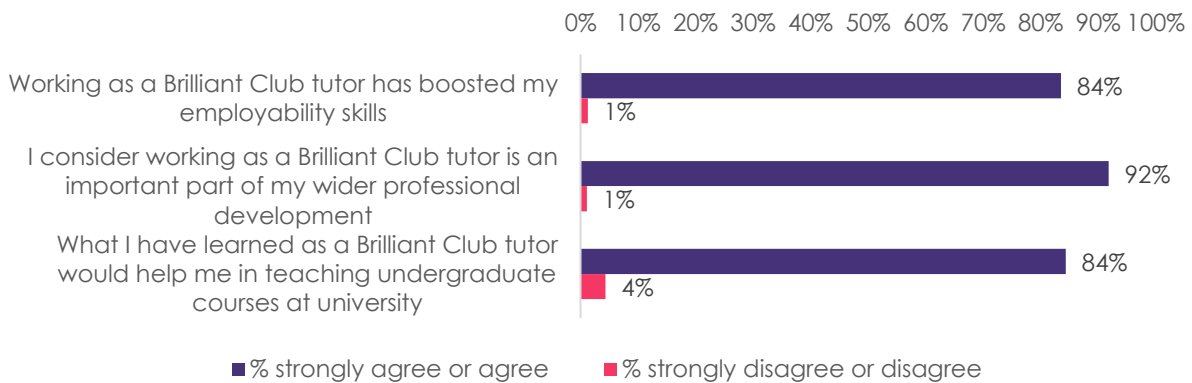


Figure 7: Survey with Scholars Programme PhD tutors in 2017-18 and 2018-19. Answer options are on a five-point scale from 'strongly agree' to strongly disagree'

Some interviewees commented that supervisors and departments in universities encourage PhD students to focus primarily on their thesis and on opportunities such as university teaching and publication. They felt there was a lack of opportunity within their universities to learn about careers outside of the academy or to develop skills and experience that would be useful for these careers. In particular, they described a feeling that academic careers were viewed as the default with other careers being seen as 'alternative'. This was often a barrier to researchers feeling fully informed about the range of career options available to them post-PhD.

Working on The Scholars Programme offers researchers a chance to be involved in public engagement and widening participation work and provides training that, whilst developing skills useful for academic jobs, also provides experience of communicating their research beyond the academy, thereby opening up alternative career paths. This combination of researcher development and widening participation offers a different perspective to the clear distinction between academic and non-academic jobs that often underpins discussions about post-PhD careers in universities.

I have been working for the Brilliant Club for two years and delivered The Scholars Programme in 16 schools, mostly during the period after completing my PhD. I am now moving on to a **lectureship** and my work with The Brilliant Club helped me to **develop expertise around outreach and widening participation**, which was certainly an asset during the selection process. In the future, drawing on expertise as a Brilliant Club tutor, I'm aspiring to **develop a leadership role around outreach and widening participating** in my department.

Dieter Declercq, University of Kent, Scholars Programme PhD tutor

Researcher engagement via The Scholars Programme gives researchers a broad employability skillset that can be used in academic and non-academic roles. This includes going into teaching via Researchers in Schools, working as lecturer and researcher, working

in widening participation at university, or in industry roles. It also helps PhD tutors to understand the widening participation landscape and the societal context within which universities operate. This has the effect of setting PhD tutors up as potential future professionals in academia who are able to combine excellent teaching and research with awareness of and commitment to widening participation. It also develops their ability to engage the public and talk about their research outside of academia.

Conclusions

In many ways, these are exciting times for researcher development: there is an emerging profession of committed researcher developers at UK universities, more PhD programmes with structured RD support are available, and there is an increased recognition of the importance of teaching and creating career pathways for researchers within and outside of academia. Alongside these trends, PhD students have high expectations for their professional development support.

We hope the six lessons in this case study will stimulate discussions about how linking up researcher development and fair access can help make significant progress for both agendas – and also where the limits of such an approach are. In our view, mobilising the PhD community to share its expertise with state schools is not only an effective way to support fair access and university readiness. There are many opportunities in the widening participation work of universities that provide researchers with a way of achieving one of their main motivations – to have a positive impact via their research. Even better if this is combined with pedagogical training for researchers and opportunities to build a broad set of employability skills.

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