



OPTIMA case study 4:

Scotland Pilot of The Brilliant Club

GRADUATION OF THE FIRST COHORT FROM BRILLIANT CLUB SCOTLAND

Breaking down barriers

by Helen Parker and Adeel Shafi (Third year OPTIMA students). Introduction by Dr Kirsty Ross (OPTIMA Outreach Officer)

INTRODUCTION

The Brilliant Club is an award-winning charity that exists to increase the number of pupils from under-represented background progressing to highly-selective universities. They do this by mobilizing the PhD community to share its academic expertise with state schools.

In the UK today, there is an entrenched link between pupils' background and their access to higher education. The UCAS Multiple Equality Measure shows that 1 in 4 of the most advantaged quintile of English 18 year olds enter highly-selective universities compared to just 1 in 50 pupils from the most disadvantaged quintile.

The Brilliant Club works with more than 500 schools and colleges across England, Wales and, as of May 2017, Scotland as well. In 2015/16, they worked in partnership with schools, universities and other supporters to employ over 600 PhD researchers to reach 9,472 pupils.

In Scotland, areas are categorised using the Scottish Index of Multiple Deprivation (SIMD). OPTIMA students have chosen, as part of OPTIMA's public engagement strategy, two of our target audiences to be:

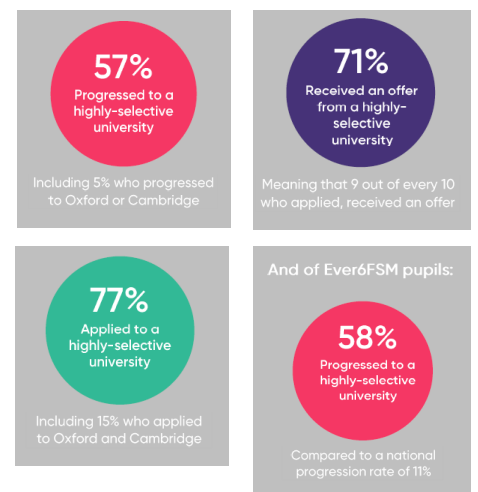
young people making subject choices and individuals from deprived areas, as identified via SIMD.

The Brilliant Club, in partnership with Glasgow City Council (GCC) and the University of Strathclyde's Widening Participation team, agreed to run the first Scottish pilot in Glasgow. Two secondary schools were recruited to the pilot as the school's catchment area includes both low and high SIMD areas. In the case of Hyndland Secondary, the catchment includes Partick and Whiteinch, as well as Hyndland and Dowanhill. In the case of Holyrood Secondary, the catchment includes Govanhill and Rutherglen, as well as Langside and Newlands.

Given the natural overlap between OPTIMA and the Brilliant Club, we were delighted when two of our students were selected as the very first Scottish Brilliant Club tutors!

As the pilot got underway, the Brilliant Club and UCAS published their research into the impact of the Brilliant Club on the learning destinations of participants, compared to matched students who didn't take part in the programme:

Of the total cohort of pupils, UCAS reported the following impact:



Helen and Adeel will now explain a bit more about their experience with the Brilliant Club in their own words.

Lasers and microbubbles: engaging S2/3 pupils with OPTIMA research

By Helen Parker & Adeel Shafi (Third year OPTIMA students)

What made you want to get involved with the Brilliant Club?



HP When I was at secondary school I would have qualified to be a student on the Scholars Program. I have no parental history of higher education and lived in a low-income household, but I was doing well at school. I consider myself fortunate to have spent all my life in education and felt like I could offer something valuable to the Brilliant Club. I hope that the course I taught had an impact on students who are in similar situations.



AS *I wanted to give back. Living in a low income household and going through public schooling I know what it can be like when your potential is not exploited, as well as your options being narrowed relative to what you can do after your school years. I feel blessed to have this opportunity, so I wanted to give back and have an impact on pupils to promote not only science, but education in general. If I had had this opportunity at the same age, it would have significantly helped me in motivation, post-school outlook, and career choices and opened my eyes to some of the realities of where higher education can take you.*

How did the training weekend go?

AS *It was excellent! I was unsure what to expect but it was well structured, really informative and provided us with all the tools and theory we needed to complete our module handbook and plan our tutorial activities. In addition to the training, meeting other tutors who had been through the experience allowed for plenty discussion on what was to come and how to avoid some common pitfalls.*

HP The training weekend was fantastic! The weekend was two days of interesting theory balanced with fun practice that made me completely re-think the way I designed my course. It was a fantastic opportunity to meet

the other tutors and talk to them about their own reasons for getting involved with the Brilliant Club.

How did you feel before your first tutorial?

HP Initially I was very nervous. I had no idea what the students would be like or whether they would be interested in what I wanted them to learn. My biggest worry was the possibility of having to deliver my first tutorial with the teachers in the room. However, the Brilliant Club do their best to give tutors and their students space from their teachers as they believe that the tutorials benefit from a more relaxed atmosphere, so the first tutorial ended up being not as nerve-wracking as I was afraid it would be.

AS *We met the teachers and then the pupils at the University of Strathclyde. The pupils were all extremely enthusiastic from the onset so this added a bit of pressure as I wanted my tutorials to be as enjoyable and as beneficial as possible. Once we were in the rooms and there were no teachers, I felt at ease and any nerves or worries I did have completely disappeared.*

Were there any surprises during your tutorials?

HP These students surprised me by being completely open-minded to physics! They engaged from the outset and thrived on the challenging nature of what the course involved. The students appreciated being treated as though they were capable of grasping advanced concepts, and they absolutely were. We covered such concepts as the wave-particle duality of light, which I didn't learn about until my Undergraduate years. I really hope that I had an effect on their perception of science and scientists, it would be great if I positively influenced the choices they make in the future whether that be to pursue science or not.



The covers of Helen and Adeel's tutorial books.

AS *Only good ones! I was surprised as to how quickly the pupils grasped the content of the course, it highlighted how effective learning in a practical environment can be for understanding new concepts. I also was really surprised to see how much the pupils liked the idea of combining physics and biology to solve a clinical problem, none of them had imagined this to be a solution and so they themselves were surprised this is what I research on a daily basis. I guess it shows how having an end-goal for doing something can completely transform one's enthusiasm for a subject.*

What was it like marking essays?

AS *One thing I've never appreciated whilst being a student is just how long it takes to mark one essay! At first it was a little strange being the one holding the marking pen. I read through all the essays making notes to give myself a rough idea on which category they would fall in. Then I re-read them again whilst referring to the marking criteria I had created to officially mark and grade the assignments. It is extremely rewarding when you see how much a pupil has progressed as a result of your teaching.*

HP In a word – challenging! It was a long process. Firstly, I anonymized them, I read them all twice and then grouped them within vague grade boundaries. Then I re-read them several times, made notes on them all and settled on final grades. It took an entire day to mark twelve essays and a second day to write comprehensive, completely individualised feedback reports for all the students.

What were the pitfalls?

HP Chasing students for missed homework was a challenge!

AS *Timing could sometimes be an issue, 5 tutorials each 45 minutes long really isn't a lot of time to deliver an entire module, especially if some pupils had forgotten and gone to their scheduled class!*

What were the highlights?

AS *Through the homework assignments I was marking each week I could see the pupil's knowledge and understanding getting stronger and stronger, which really was inspiring and rewarding. At the start the pupils treated me like they would their teacher, but I wanted to break this barrier and engage with them in a manner similar to how a lecturer would do giving a tutorial at university, once I managed this it was really amazing to see how much the pupils opened up and engaged in the class a lot more.*

HP The dynamic between tutor and student is so different from teacher and student. After I explained to the students that I was still a student myself (albeit a much older one!), they felt like they could be honest about what we were learning in tutorials and they freely gave their opinions about what they were learning in school. Many students expressed that although they were doing well in science and maths lessons, they did not understand the value of what they were learning. This put me in the position of being able to answer their questions related to why they learn what they learn, which I really enjoyed. The students had genuine appreciation that they were taking part in a course based on real research designed especially for them.

Do you have any advice for wannabe tutors?

HP It takes a lot of time to put together a course with a cohesive story, engaging activities and worthwhile homework. Not easy but worth the effort.

AS *You need confidence and preparation. Activities best for explaining new concepts. Have enough content that some could be dropped if time runs*

short. Creating the module from scratch takes a long time!

Would you do it again?

HP Yes! I believe that all research should be worthwhile, and research that is worthwhile should be shared...with people who could carry it forward in the future?

AS *Definitely!*

PARENT'S PERSPECTIVE ON THE PROGRAMME

"It gave the children more confidence – firstly, being chosen and then showing them their capabilities and letting them know what universities offer and all the opportunities open to them when they leave school".

"Very enjoyable and informative programme, will hopefully inspire my son to progress".

"This programme has been incredibly well run and an amazing initiative. It has greatly helped my son's confidence".

"Thank you for giving this opportunity to our children, to have a better understanding about university".

"This was an excellent event. Thank you very much. I think it's great that they got an insight into uni life at this age. This should be available for all students and parents. I have a current 6th year and, as parents, we were clueless about the process".

"Very enjoyable and informative day. Very professional and the course has been really good for my daughter".

The Brilliant Club has presented a wonderful opportunity. Our daughter has been inspired by the topic and totally enjoyed all the learning. All pupils need more opportunities like this – this is what learning should be like. Thanks!".

Parent/carer,

Parents/carers of the students in the programme

PUPIL'S PERSPECTIVES ON LAUNCH TRIP

"I found it very interesting and educational. Beforehand it was a bit of a grey area, but now I understand uni's much better and would like to go to one if possible".

"I really enjoyed the experience of learning things that were not in the normal Scottish curriculum".

"My views regarding the university were amazing. The information and support given to me was beyond my comprehension".

"I have enjoyed today. The tour was amazing and I loved what I saw. In the tutorials, I enjoyed learning things I didn't know and having group discussions".

S2/S3 participants,

Students from Holyrood and Hyndland Secondary Schools

PUPIL'S PERSPECTIVES ON GRADUATION TRIP

"The graduation was great. It was a chance to reflect on the brilliant work I did and how I worked as a team. It was fun as well".

"I thought that it was very helpful and has taught me skills that could be important when I'm older".

"I have enjoyed the whole programme overall and I have learned things I wouldn't learn in High School".

"The Scholars Programme was fun and interesting!! Thank you for the opportunity 😊".

"It was highly enjoyable and would be seriously recommended to anybody else next year".

S2/S3 participants,

Students from Holyrood and Hyndland Secondary Schools