The Brilliant Club and the University of Glasgow Q-Step Centre, 2018-19

Introduction

This case study looks at the collaboration between the University of Glasgow Q-Step Centre and The Brilliant Club over the academic year 2018-19.

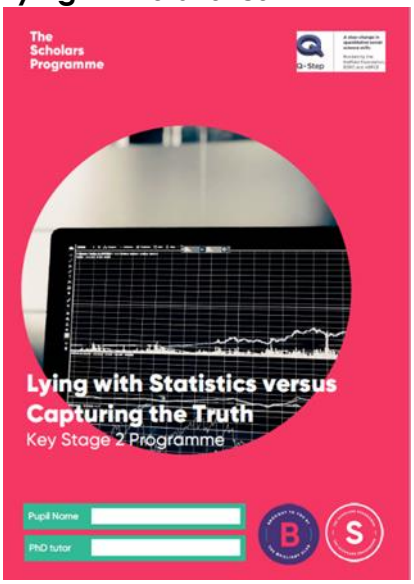
The partnership saw the design and delivery of *Lying with Statistics versus Capturing the Truth,* a course delivered to Key Stage 2 and P5/6 pupils enrolled on The Brilliant Club's Scholars Programme.

The Scholars Programme recruits, trains and places doctoral and postdoctoral researchers into state schools across the UK to deliver courses of academic enrichment to small groups of pupils. Through a combination of university trips, in-school tutorials and online resources, pupils aged 10-18 are supported to develop the knowledge, skills and ambition needed to progress to highly-selective universities.

For the third year in a row, independent analysis by UCAS showed that pupils on The Scholars Programme are significantly more likely to apply to, receive an offer from and progress to a highly-selective university than pupils with similar socio-demographic backgrounds and GCSE attainment.

The University of Glasgow is one of 17 Q-step Centres across the UK that are delivering specialist undergraduate courses designed to promote a step-change in quantitative social science education and training. Q-Step is funded by the Nuffield Foundation and the ESRC.

Lying with Statistics



The course *Lying with Statistics versus Capturing the Truth* introduces pupils to the world of statistics and surveys, exploring different ways to present data, analyse results and ensuring that surveys ask the right questions. Aimed at 9-11 year olds, the course focuses on exploring how data could be appropriately used to study the world around us and encourages pupils to look beyond sometimes misleading headlines. Throughout the tutorials, pupils develop their statistical analysis skills and problem solving as well as their discussion skills through learning in a small group.

During the Summer Term of 2018-19, the *Lying with Statistics* course was delivered by seven PhD tutors in 10 schools to 119 pupils.

Of these pupils, 45% were eligible for pupil premium, 37% had no parental history of higher education, and 81% were living in the 40% most deprived areas according to IDACI. In total, 83% of the pupils met at least one of these targeting criteria.

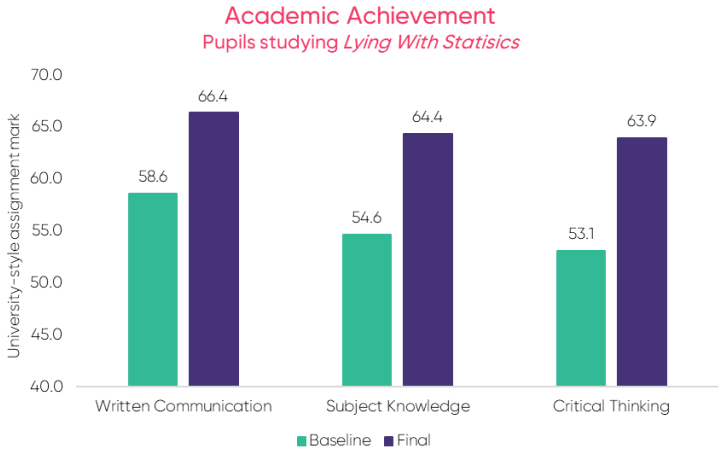
Across the placements, there was 93% tutorial attendance, with 97% of pupils submitting their final assignment.

Outcomes

Written Communication, Subject Knowledge and Critical Thinking

Pupils submitted a baseline assignment at the beginning and a final assignment at the end of the programme, both pitched a key stage above their current year group.

The following averages are based on the 80 pupils that have submitted both their baseline and final assignments.



University Knowledge

Research shows that the lack of knowledge about higher education is one of the key barriers in university access for underrepresented pupils. The below questions measure subjective knowledge as well as the self-confidence and perceived ability of pupils to progress to and succeed at university. Questions were asked both at the beginning and at the end of the programme.

The percentages are based on the 83 pupils studying *Lying with Statistics* and who completed both questionnaires.

University Preparation	Pre	Post	National Average	
			Pre	Post
	% Strongly Agree or Agree			
I have a good level of knowledge in the subject that The Scholars Programme focuses on	58%	83%	53%	79%
I can complete written work to the same standard as a pupil two years above me at school	48%	69%	48%	63%

I would feel confident talking to a university teacher about my work	73%	76%	68%	66%
I understand why and how people study when they are at university	72%	83%	63%	77%
I know the steps I need to take to apply to university in the future	60%	73%	51%	64%
I am capable of studying at a highly selective university	76%	82%	70%	75%

Comments

I have loved The Scholars Programme, it gave me an opportunity to understand and experience university

Pupil, Belvedere Junior School

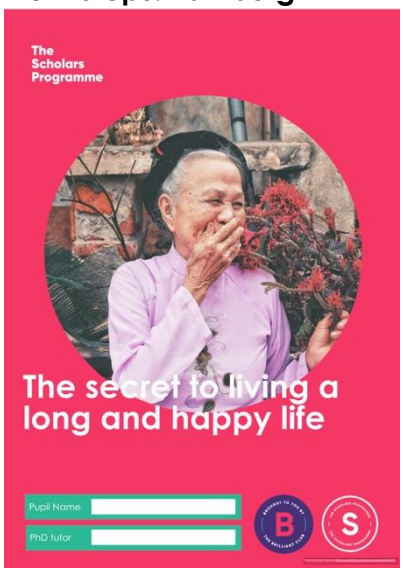
I loved The Scholars Programme and taking part made me feel inspired and helped me work towards my goal of being a doctor

Pupil, Selwyn Primary School

As someone who strongly believes in the importance of encouraging science and research literacy from childhood, I was delighted to be able to teach the pre-designed course 'Lying with statistics versus capturing the Truth' to a year 5 class. The pupils in my tutorials really enjoyed 'playing detective' by spotting and fixing some of the errors researchers and journalists make that often result in misleading findings."

Dr Katie Jones, PhD Tutor

Next Steps: Edinburgh



'The secret to living a long and happy life' is a new course on social statistics aimed at 12-13-year-old pupils across the UK, developed by the Edinburgh Q-Step Centre and The Brilliant Club. The course focuses on the concept of life expectancy and invites students to consider the factors which shape someone's chances of living a long and happy life. The tutorials introduce discussion on ageing, health and wellbeing and social inequalities. These important themes are explored using the latest international evidence; allowing pupils to use data to investigate the world around them, deepen their understanding of population trends and develop a range of analytical skills.

In August 2019 the Edinburgh Q-Step Academy was established, a partnership between the Edinburgh Q-Step Centre and five local schools. The Academy sits in the School of Social and Political Science and aims to raise the profile of social statistics in secondary schools and to widen participation in Higher Education.