



The University of Edinburgh



A step-change in
quantitative social
science skills

Funded by the
Nuffield Foundation,
ESRC and HEFCE

Step data-driven undergraduate placements - challenges and achievements

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Outline

- What is Q-Step?
- Introduction to the Q-Step placement programme
- Evaluation of the programme
- Activity and group discussion
- Q & A

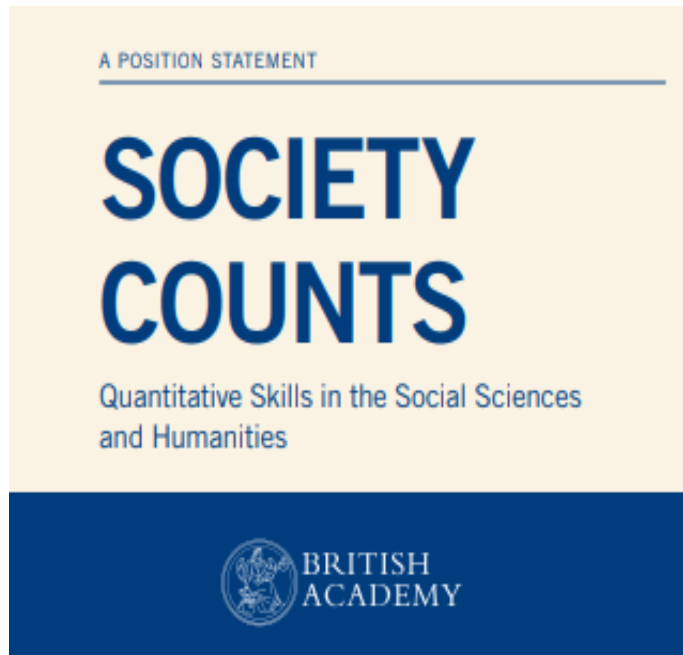




About Q-Step

Q-Step is a national initiative to ensure students are equipped with the quantitative data analysis skills needed in tomorrow's Social Scientists.

“... becoming a data-literate nation.”



British Academy (2012)



British Academy (2015)



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About Q-Step

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https://www.youtube.com/watch?time_continue=85&v=omAdqi8Cqx4

£19.5 2014 – 2021



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About Q-Step

City Region Deal

Our aim is to work with partners to establish the region as the data capital of Europe, attracting investment, fuelling entrepreneurship and delivering inclusive growth.

Data Capital of Europe



Ambitious plans to establish the City Region as data capital of Europe received the backing of the UK and Scottish governments when Data-Driven Innovation was agreed as a key part of the Edinburgh and South East Scotland City Region Deal in 2017.




- **Research, Development and Innovation:** £751 million
- **Integrated Regional Employability and Skills:** £25 million
- **Transport:** £156 million
- **Culture:** £45 million
- **Housing:** £313 million



Edinburgh Q-Step Centre

- Offers five MA social science degree programmes that combine quantitative methods (QM) with...

Politics	International relations	Social Policy	Government, policy & society
Sociology			

- Methods courses (4 Compulsory and 6 electives)
- Outreach and placement programmes
- A Student Society for Quantitative Research 
- Student led social enterprise  ScotQuan
- Graduates' destinations: MSc/PhD, analytical roles in NHS /government, research, consultancy, teaching, gaming industry...



Edinburgh Q-Step placement programme

- Structure
- Approach and principles
- Requirements
- Prep and support
- “Formative assessment”
- Partners include:

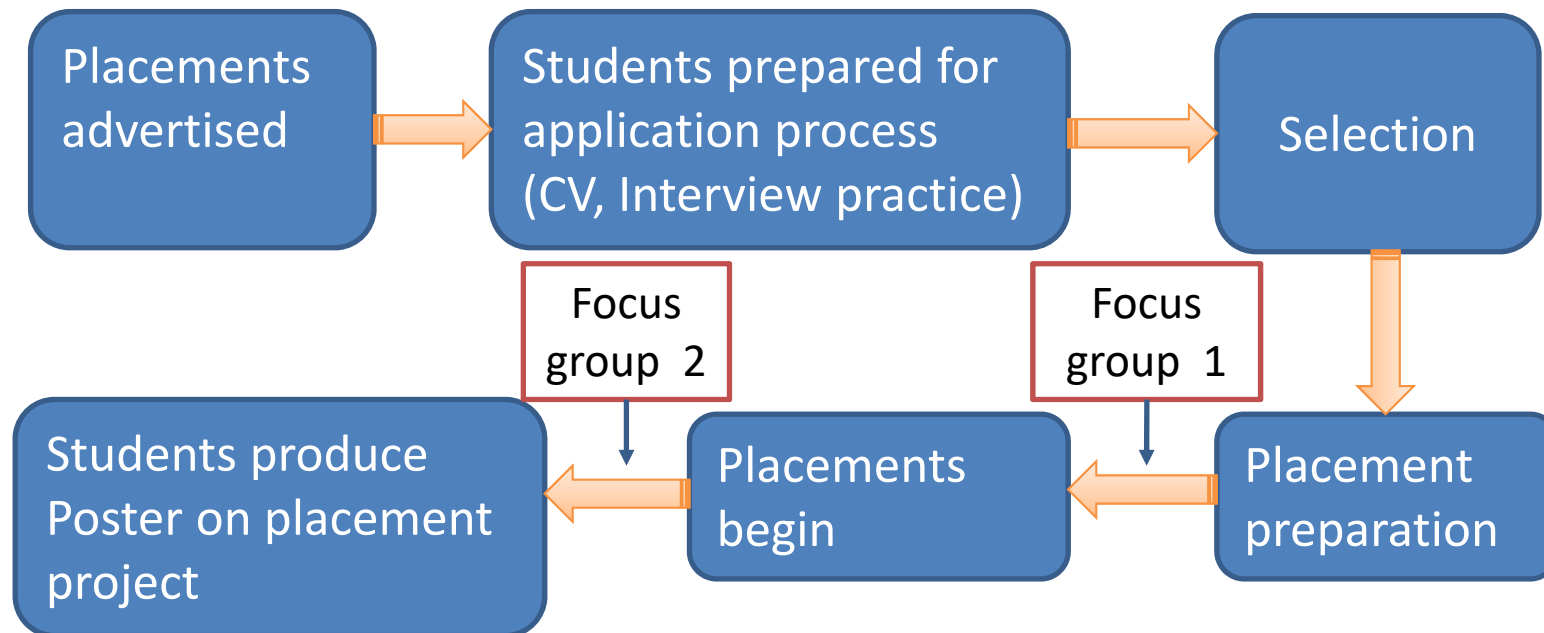




Evaluation of the placement programme

- Aims
- Research design - a qualitative longitudinal case study
- Data collection
 - ✓ Pre placement focus group (9 students, June '18)
 - ✓ Post placement focus group (9 students, Sep '18)
 - ✓ Evaluation forms (11 students & graduates, inc. some who didn't complete a placement, from June '18...)
 - ✓ Other data collected as part of this project...
- Thematic analysis...

Evaluation of the placement programme





FINDINGS



Theme 1: Motivation to engage with data through undertaking a Q-Step placement

- Opportunity & Confidence to approach prestigious high quality placements
- Putting skills into practice
- Importance of paid placements

“Like the Scottish government or ScotCen...if we had just applied to maybe doing internship there without Q-step behind us, I don’t know if it would’ve been possible...”

“to see how we can sort of use our skills in a practical context and if what we’ve actually learned so far, it’s going to be applicable in different situations.”

‘it’s not like you have to give up your summer and not make any money and be struggling for the rest of the year’



Theme 2: Barriers to Q-Step placements uptake

- Economic constraints;
- Personal and academic circumstances;
- Competing self-development opportunities.

“I don't feel confident enough currently in my abilities to go ahead with the interviews and following placement”

“I came to realise that I was more interested in pursuing placements that offered experience in qualitative research and lobbying/PR experience”



Theme 3: Expanding understandings of what data analysis in industry involves

- Valuing the importance and role of data management and visualisation
- Dealing with task complexity and uncertainty

“A lot of the work was creating categories and things to work with later “

I decided to look over the variables available and pick out the ones I thought could be interesting ... I probably could've also taken all 2000, sent them through, for example a machine learning technique and see ...if there was something I was missing“

- The collaborative nature of knowledge construction

“I presented all of my findings to the team, they kind of created a long discussion and I really saw how they used it in a different way than I really imagined they would use it in the start.”



Theme 4: Development of professional agency and soft skills through working with data in a summer placemat

- Reconceptualising the subject field
- Work readiness self-assessment
- Effective feedback seeking

“it’s kind of like if someone asks you, “So what are you studying?” you’re just like, “I don’t know how to describe what I do,” but now it kind of gives some grounding.”

“...this is my first time I’ve been in an actual working environment and I realise that I can do it and that I don’t really mind the 9 to 5 life.”

“ I was sitting next to people into management...so that really helped learning how to, like, speak to someone in, like, a senior role to you, which was good.”



Summary

The Q-Step placement process changes the way students engage with data by:

- Providing the support and confidence necessary for students to embark on a data-driven placement in prestigious organisations;
- Removing (some of) the barriers that might prevent students from taking up such opportunities;
- Expanding understandings of what data analysis actually is and how it is applied in industry;
- Development of professional agency and other soft skills in the context of team work around a quantitative analysis project.



Limitations & ways forward

- These are preliminary findings – further analysis and triangulation is needed...
- The study could have benefited from more data on students who didn't undertake a Q-Step placement;
- External researcher to reduce risk of bias?
- There is little theoretical and empirical literature on data-driven / research-led work based learning in the social sciences.



References

British Academy (2012) Society Counts

<https://www.thebritishacademy.ac.uk/sites/default/files/BA%20Position%20Statement%20-%20Society%20Counts.pdf>

British Academy (2015) Count Us In

https://www.thebritishacademy.ac.uk/sites/default/files/Count-Us-In-Full-Report_0.pdf

