

Increasing the use of Large Scale Social Surveys in Undergraduate Dissertations in the Social Sciences

External evaluation report
Professor J. Falkingham and T. McGowan,
School of Social Science
University of Southampton

1. Introduction and Rationale

Increasing the use of Large Scale Social Surveys in Undergraduate Dissertations in the Social Sciences was a two year pilot project carried out by the School of Social Sciences at the University of Manchester, funded by the Economic and Social Research Council (ESRC).

The project was motivated by the identification among UK funding bodies such as the ESRC and the Higher Education Funding Council for England (HEFCE) that a current 'deficit' in the number of quantitatively trained social scientists exists in the in the UK. Funding bodies recognise that in order to address this issue resources should be directed to ensure the development of quantitative methods skills among social scientist early in the career lifecycle (ESRC, 2006. HEFCE, 2005). This project aimed to pilot a new initiative to increase the use of large scale social surveys among undergraduates to address this need.

The main project activities were to design a quantitative methods module and implement this through five, half-day taught workshops. Attendance was optional for all second year Sociology students, with

up to twenty places available. Eleven students attended. The workshops aimed to encourage participants to undertake an analysis of a large scale survey in their final year dissertation. Due to the optional nature of the course a monetary incentive of £100 was offered to all students who attended the entire course, a further £100 was given to those who used some large scale survey analysis in their dissertation and a £500 prize was awarded to the student who submitted 'the best dissertation based on secondary data analysis of a large scale survey dataset' (Brown, 2007).

We, academic award holders for two related projects at the University of Southampton carried out an external evaluation of the project over the period November 2007 to August 2008. We evaluated the project with consideration of the pilot study's intention set out by Brown (2007) which stated the following aims and objectives;

Aims:

- Increase the exposure of social science undergraduates at the University of Manchester to quantitative methods and the rich resource of quantitative social data available to them
- Enthuse and equip students to undertake their final year dissertations using these resources

Objectives:

- Design a quantitative methods training module based on taught workshops and follow up support to meet the stated aims
- Develop a range of associated learning and teaching resources, included themed topic workbooks for supported self study
- To pilot the module on a cohort of Manchester social science undergraduates

- In light of the evaluation, develop the workshops into a credit bearing module offered to undergraduate programmes across the school of Science at Manchester, for inclusion as a formal component of their core methods teaching
- Make teaching materials from the project (including teaching exemplars and themed workbooks) freely available to other institutions over the internet
- Publicise and disseminate best practice from the project

The purpose of this evaluation was to assess how far the project fulfilled its objectives and how successful the activities it undertook were at achieving its aims. Lessons that can be learnt from this pilot project are highlighted in order to inform the design of the proposed credit bearing module.

2. Evaluation methods

2.1 Site visit

We visited Manchester in November of 2007 in order to observe the final half-day workshop and see the project 'in action'.

2.2 Questionnaire

We administered an evaluation questionnaire at the end of the final session to find out students opinion of various aspects of the course such as the content, usefulness of the topics covered, difficulty, teaching quality, organisation and structure of the course and their motivation for attending.

2.3 Focus group discussion

During our site visit we also undertook a focus group discussion with all participants of the final half-day workshop.

2.4 Review of project documentation and student dissertations

Finally we reviewed the content of the project documentation and, in order to make an informed assessment of the usefulness and applicability of the workbooks, we also undertook a review of the dissertations produced by students on the course.

3. Quantitative evaluation

Course feedback questionnaires (Appendix 1) were distributed and completed by all eleven students attending the final workshop.

3.1 Questionnaire Findings

3.1.1 Overall opinion of the course

When asked to give the workshops an overall summary rating on a scale ranging from 1 (poor) to 5 (excellent), 10 out of the 11 students gave the workshops a 4 or 5, with 6 students giving the workshops an overall score of 5. The mean score for this summary rating was 4.45.

When rating the overall content of the course it was found that students rated the content of the course highly with 9 out of the 11 students rating the workshops at 4 or above for content and 5 people rating it as 5 (excellent). The mean score for overall content was 4.27.

Students overall rating of the organisation of the workshops was even higher, with all 11 people rating the organisation of the Workshops at 4 or above and 8 people rating it as 5 (excellent). The mean score for organisation was 4.72.

For the overall structure of the Workshops 9 people rated it at 4 or above, while 4 people rated it as 5 (excellent). The mean score for structure was 4.18.

All students rated the information distributed before the start of the workshops as 3 (satisfactory) or above. The mean score given by students for the information distributed before the start of the workshops was 4.09.

Score	Frequency
1	0
2	0
3	3
4	4
5	4
Total	11

Table 3.1 Frequency distribution of rating for information distributed prior to the course beginning

3.1.2 Students opinion of teaching

We also asked students to rate the teaching in the workshops using a Likert scale ranging from 1 (poor) to 5 (excellent).

For the clarity of explanations by teaching staff in the workshops 5 the majority of students rated the clarity of explanations as 5 (excellent). The mean score for was 4.09.

Score	Frequency
1	0
2	1
3	2
4	3
5	5
Total	11

Table 3.2 Frequency distribution of clarity of explanations

When asked “How do you rate the opportunity to ask questions?” 11 people rated the opportunity to ask questions at 4 or above and 8 people rated it as 5, with a mean score of 4.72.

Most people rated the speed at which ideas were presented as 4.

Score	Frequency
1	0
2	1
3	1
4	6
5	3
Total	11

Table 3.3 Frequency distribution of speed at which ideas were presented

The quality of the teaching overall was rated by 8 people of teaching as 5 (excellent), with a mean score of 4.63.

3.1.3 Motivation for attending the workshops

7 students said that their main motivation for attending the Workshops was to either to learn about quantitative methods or improve the quality and grade of their dissertation.

Motivation	Frequency
Learning quantitative methods	4
Improving the quality and grade of your dissertation	3
Money	4
Total	11

Table 3.4 Frequency distribution of student's main motivation for attending the Workshops

When current students were asked if they thought future students would be motivated to attend the course if they were not paid to do so, only 2 students said 'Yes' while 2 said 'No' and 7 said they were 'Not sure' if students would still be motivated to attend the Workshops in future years if pay was not offered.

Motivated to attend without offering of payment?	Frequency
Yes	2
No	2
Don't know	7
Total	22

Table 3.5 Frequency distribution reflecting student views of motivation to attend

3.1.4 Individual topics

In order to evaluate how useful the students found each of the workshops sessions they attended we asked them to rate them in the same way as before. Recoding variables, computing variables and presentation had the highest mean score of 4.27, thus students found these sessions the most useful. While thinking about your research question session was seen as the least useful.

Topic	N	Minimum	Maximum	Mean	Std. Deviation
Research Question	11	3	5	3.91	.94
Appropriate datasets	11	3	5	4.00	.89
SPSS Basics	11	3	5	4.18	.87
Intro to SPSS syntax	11	3	5	4.18	.87
Preparing for EDA	10	3	5	4.10	.88
Obtaining frequencies for categorical data	11	3	5	4.18	.87
Checking the variable	11	3	5	4.09	.94
Select command	11	3	5	4.18	.87
Recoding variables	11	3	5	4.27	.90
Computing new variables	11	3	5	4.27	.90
Cross tabs	11	2	5	4.09	.94
Central tendency	11	3	5	4.00	.63
Presentation	11	3	5	4.27	.65

Table 3.6 Mean scores for usefulness of each topic

Tables 3.7 – 3.19 Show the frequency distribution of scores for usefulness of each topic:

Score	Frequency
1	0
2	0
3	5
4	2
5	4
Total	11

Table 3.7 Thinking about your research question

Score	Frequency
1	0
2	0
3	4
4	3
5	4
Total	11

Table 3.8 Finding an appropriate dataset

Score	Frequency
1	0
2	0
3	3
4	3
5	5
Total	11

Table 3.9 SPSS basics

Score	Frequency
1	0
2	0
3	3
4	3
5	5
Total	11

Table 3.10 Introduction to SPSS syntax

Score	Frequency
1	0
2	0
3	3
4	3
5	4
Total	10

Table 3.11 Preparing for EDA

Score	Frequency
1	0
2	0
3	3
4	3
5	5
Total	11

Table 3.12 Obtaining frequencies for categorical variables

Score	Frequency
1	0
2	0
3	4
4	2
5	5
Total	11

Table 3.13 Checking the variable

Score	Frequency
1	0
2	0
3	3
4	3
5	5
Total	11

Table 3.14 Using select command

Score	Frequency
1	0
2	0
3	3
4	2
5	6
Total	11

Table 3.15 Recoding variables

Score	Frequency
1	0
2	0
3	3
4	2
5	6
Total	11

Table 3.16 Computing new variables

Score	Frequency
1	0
2	1
3	1
4	5
5	4
Total	11

Table 3.17 Cross tabulations

Score	Frequency
1	0
2	0
3	2
4	7
5	2
Total	11

Table 3.18 Measures of central tendency

Score	Frequency
1	0
2	0
3	1
4	6
5	4
Total	11

Table 3.19 Presentation

For each topic we also investigated students' perceived difficulty. Students found thinking about your research question the easiest (mean score 2.09) and preparing for EDA the most difficult (mean score 3.85).

Topic	N	Minimum	Maximum	Mean	Std. Deviation
Research Question	11	1	3	2.09	.70
Appropriate datasets	11	2	4	2.55	.82
SPSS Basics	11	1	4	2.36	.81
Intro to SPSS syntax	11	2	4	2.90	.83
Preparing for EDA	11	3	5	3.85	.82
Obtaining frequencies for categorical data	11	1	4	2.91	.94
Checking the variable	11	2	4	3.00	.63
Select command	10	2	4	3.20	.63
Recoding variables	11	2	4	3.36	.80
Computing new variables	11	2	4	3.45	.82
Cross tabs	11	1	4	2.55	.82
Central tendency	11	1	4	3.09	.83
Presentation	11	1	4	2.36	.92

Table 3.20 Mean difficulty scores for each topic

Tables 3.21 – 3. show the frequency distribution of scores for difficulty of each topic:

Score	Frequency
1	2
2	6
3	3
4	0
5	0
Total	11

Table 3.21 Thinking about your research question

Score	Frequency
1	0
2	7
3	2
4	2
5	0
Total	11

Table 3.22 Finding an appropriate dataset

Score	Frequency
1	1
2	6
3	3
4	1
5	0
Total	11

Table 3.23 SPSS basics

Score	Frequency
1	0
2	4
3	4
4	3
5	0
Total	11

Table 3.24 Introduction to SPSS syntax

Score	Frequency
1	0
2	0
3	8
4	1
5	2
Total	10

Table 3.25 Preparing for EDA

Score	Frequency
1	1
2	2
3	5
4	3
5	0
Total	11

Table 3.26 Obtaining frequencies for categorical variables

Score	Frequency
1	0
2	2
3	7
4	2
5	0
Total	11

Table 3.27 Checking the variable

Score	Frequency
1	0
2	1
3	6
4	3
5	0
Total	10

Table 3.28 Using select command

Score	Frequency
1	0
2	2
3	3
4	6
5	0
Total	11

Table 3.29 Recoding variables

Score	Frequency
1	0
2	2
3	2
4	7
5	0
Total	11

Table 3.30 Computing new variables

Score	Frequency
1	1
2	4
3	5
4	1
5	0
Total	11

Table 3.31 Cross tabulations

Score	Frequency
1	1
2	0
3	7
4	3
5	0

Table 3.32 Measures of central tendency

Score	Frequency
1	2
2	4
3	4
4	1
5	0
Total	11

Table 3.33 Presentation

3.1.5 Open Questions

When asked for ideas on how the workshops could be improved most responses centred on the timing of the course and its length, with students suggesting shorter classes running weekly rather than long classes spread over the semester.

Some students commented on the workbooks suggesting that there should be three workbooks as originally intended.

Other areas for improvement were that the course should link more closely with the individuals dissertation and more time should be made available for one-on-one interaction.

Students also suggested other topics that they would have liked to have been covered in the workshops. These included tuition on converting

output/graphs into word/excel and tuition in a variety of datasets rather than concentration on just the British Crime Survey.

Particularly good features of the workshops were the teaching and teaching materials including the lecture notes and the workbooks that could be worked through at the individuals own speed, the use of PowerPoint which was seen as making the topic easier to understand and the help from staff. Students were also positive about the opportunity to becoming familiar with SPSS and practice using it in class.

Students view 'bad features' of the workshops as the length of lectures and not having enough time to ask questions. They also mentioned the speed of lectures and said they felt left behind if they didn't have time to complete the workbook in the session or if they didn't understand. Students also said that at times the course was difficult to follow.

Overall students commented that the sessions were extremely useful and that they appreciated the opportunity.

4. Qualitative findings

The focus group was held at the beginning of November 2007, at the end of the final course workshop. Nine 3rd year students who had attended the workshops attended.

Through a focus group discussion with students we aimed to;

- Explore perceptions of teaching and learning on the course
- Understand how far the course has increased the students confidence in quantitative methods and thus their likelihood of using it in the future (including their likelihood of using it in their final year project)

- Assess the importance of incentives in motivating students to attend the course
- Discover any changes to the course which would be beneficial from the student perspective

4.1 Focus group data collection and methods

A compulsory requirement of attending the course was that students took part in any evaluation activities, such as the focus group reported on here. However only nine of the eleven enrolled in the workshops attended.

The focus group began with an introduction to the research and the participant's role in it. It explained the confidentiality and anonymity procedure and asked the participants to treat the discussion and views of others that were to be shared as confidential. Formal consent was gained from all participants prior to preceding the discussion. The discussions were recorded on mini-disk and an observer made notes of the main themes, group dynamics and key points.

The moderator regulated the time spent on each question and the proportion of time each participant spent talking so that everyone's opinion was sought. The duration of the focus group was forty minutes.

The analysis of the data consisted of anonymising and fully transcribing the recording verbatim, which familiarised the researcher with the data. The transcript was then coded thematically. As we wanted to minimise the influence of the researchers' perspective on the data, codes were not formulated using the original research aims but we acknowledge that

judgements about the meaning and importance of the data and the development of codes will have been, to some extent, influenced by this.

4.2 Findings

4.2.1 Prior Knowledge

Many of the students attending the course said they had never carried out any secondary data analysis before, although some students had carried out previous courses in quantitative methods. The majority of students had not used SPSS prior to the course.

Despite the delivery of an introductory session explaining the course, those who had no prior knowledge of secondary data analysis would have liked more information regarding the course prior to its commencement such as what the course would involve and the software they would be using. While those who had some prior knowledge said the course had met their expectations in terms of content and helped them to revise and clarify their knowledge.

‘The session before summer they explained thing to us but with us not getting any idea of what we were going to be doing because we could never have imagined this is what we were going to be doing’ (Student)

‘We’ve never done it before because we are from Sociology. Just that we were going to be learning about some kind of statistical package and how it worked and what you do with it. But we didn’t have any idea to be honest’ (Student)

4.2.2 Motivation for attending

Students place considerable importance on the monetary reward for attending the course. Almost all students said that financial reimbursement for attending was important in motivating them to attend. However, many agreed that although money had been important in their initial decision to enrol, once the course had commenced and they had become aware of the importance of the knowledge gained the importance of money became less significant.

‘Once you get interested in it I don’t think it’s about the money, its about being interested in it. But the money is a big thing in getting you interested to start with’ (Student)

Conversely, several said that the money was a key contributor in keeping them interested in the course, stating that had they not agreed to attend all the sessions in order to gain financial reimbursement they would not have attended every class.

‘I think it was more like, I wouldn’t have stayed coming. I might have come a few times but I wouldn’t have stayed the whole, I probably would have missed a few’ (Student)

In addition, students stated that they were motivated to enrol in the course in order to gain extra help with their dissertations as well as to increase their overall competency and knowledge and improve their employability.

‘I I just thought I’ve got nothing to loose really, it wouldn’t hurt to have all this extra knowledge, I didn’t have any

previous knowledge of SPSS, so I thought anything would help really' (Student)

'It was for my CV and stuff, and my dissertation' (Student)

4.2.3 Course strengths

It was apparent that among those who attended the focus groups their confidence and knowledge in analysing secondary data and using SPSS had increased. One of the main benefits of the course, as stated by the focus group participants, was the increase in knowledge they had gained in regard to data sources. Nearly all participants had no prior knowledge of how to access secondary data sources prior to the course and agreed that this knowledge would be useful in the future.

'You don't really know there are all these statistics available on the internet, its just all there...there is so much stuff you could use that people just don't know its there' (Student)

About half of the participants said they would now consider using some secondary data analysis in their undergraduate dissertations. Most of these were planning to adopt a mixed methods approach or to use some secondary analysis to 'set the scene' for other research, however most would not have considered using it at all prior to the course.

'To be honest I don't think I would have though about doing secondary analysis because I want to do like a mixed methods approach as well. But I don't think I would have considered sort of using it really at all. Actually it will be

quite good as background for the things I want to do, so if it wasn't for the course I don't think I would do it' (Student)

Several students also said they would now be confident about using secondary analysis in their future careers.

The opinion of the students we spoke to on the delivery of the course was highly positive. They liked the practical nature of the course, the fact that they could have a go at the questions in the workbooks and ask questions from a staff member immediately if they were having problems. Furthermore, the approachableness of the staff and individual guidance gained was seen as invaluable in their learning.

'The teaching is good as well, definitely. You always felt like you could ask if you weren't sure what you were doing' (Student)

'They were like really good at coming round and helping you if you wanted help or didn't quite understand something or wanted to apply it to your dissertation. That's what I found useful' (Student)

The workbooks were viewed as a useful resource for students to be able to take away in order to practice techniques and the methods taught within them. The workbooks were seen as adaptable and applicable to their dissertations.

'It is very practical, 'cause we talk for a bit and then we actually do it and you've got a work book to take away, so its been designed so you can use it and translate it straight

away to what you want to do for your dissertation. It's really helpful' (Student)

4.2.4 Suggested improvements

Overall the course was viewed positively by the participants that we spoke to however, students felt that a lack of awareness about the course had hindered the numbers attending and it was suggested that greater investment in advertising the course could increase participation.

'I think if they gave a talk about it, because it didn't really get round that well' (Student)

In general most students felt that more individuals would attend in the future if the value of the course was further highlighted during the recruitment stage.

'If they said this is really going to help you then lots of people would want to go. We just did it 'cos we thought 'Oooh money' but then when we got on the course it was really good' (Student)

Most of the changes suggested regarded the timing of the course. It was considered that the course could be timetabled differently so it was spread out more across the semester. The three hour sessions that were employed were seen as intensive for the students and it was thought that changing these to a greater number of sessions that are shorter in duration would improve the student experience.

'More, shorter sessions as opposed to once every 2 weeks a massive 3 hour slot in the afternoon on a Friday. It is a bit of an effort really' (Student)

'It could be like one and a half hours like once a week as opposed to every other week three hours' (Student)

Other suggested improvement to the timing of the course was to have a further session prior to the summer vacation to give students more time to consider the content of their dissertations over this period, complete all sessions prior to reading week, carry out the course in the second year of undergraduate study when student workload is lower and to give participants more time to digest the information and consider how they might apply it to their final year research (for example use the course as a follow-on for the first semester, second year quantitative methods course some of the students attended).

5. Documentation and dissertations

We reviewed the course documentation in order to assess how far the documentation was used by students who enrolled on the course to apply secondary data analysis in their dissertation.

The course documentation that was available to students at the time of attending was 5 workshop workbooks based with examples using the British Crime Survey. The workbooks take the reader through various basic data analysis techniques using SPSS in a step by step process with practice tasks and motivational 'you can do it!' tips on the way.

Of the eleven students who attended the course, five students submitted a dissertation with some secondary data analysis. All of the students used a dataset other than the practice dataset which highlights the increased awareness of the wealth of secondary data available achieved by the course. Datasets used include the Labour Force Survey, General Household Survey, Samples of Anonymised Records, British Social Attitudes Survey and the National Survey of Sexual Attitudes and Lifestyles.

However, students tended to use the secondary data analysis to 'set the scene' for further qualitative work rather than using secondary data analysis as their main research method. None of the students carried out anything more complex than simple descriptive analysis. Of the five students who used any secondary data analysis, most transformed and/or recoded variables in some way, selected groups of interest to compare, created cross tabulations and displayed these in tables and/or graphs. One student compared change over time by comparing the proportions in group across several years. All of this had been taught in the workshops. None of the students mentioned more complex issues such as weighting, which was also taught. However, the limited secondary data analysis that was carried out by students was to a high standard, was applied appropriately and was correctly interpreted.

6. Discussion and Conclusions

Overall the course was seen as successful by those students who attended. These students expressed a marked improvement in their confidence in sourcing, analysing and interpreting secondary data. The likelihood of these students using the methods they were taught in the future appears to have increased as a direct consequence of the course activities with five of the eleven students using it in their dissertations and several stating that they would use it in the future during the focus group discussion.

Added value has also been achieved in the overall student experience and their level of quantitative knowledge. Despite methods training at Manchester for Sociologists currently occurring throughout the second year (5 Week modules over the course of the second year) several students said that they had had no methods training. This course addressed the student need for an introduction for those who had not previously studied methods and an opportunity for revision and clarification among those who had.

However, as a proportion of the overall numbers of Sociology students eligible to attend the course only a small number attended. In order to improve this outcome this pilot study suggests that similar courses in the future should invest in information dissemination at the recruitment stage, especially where those attending are likely to have little or no prior knowledge of secondary data analysis. It is clear that improvement of the information given prior to the commencement of the course would improve take-up. Furthermore, publicising the value of the course; its benefits for future employability, usefulness when carrying out an undergraduate dissertation and an explanation of how an individual's skills base will be improved would reduce the need for incentives.

In addition, one reason take up of the course was low may be due to the course being seen as 'extra work'. It is suggested that integrating the students own dissertation topic further in the workshops may encourage them to see the relevance of the course and improve enrolment. If the students view the course as 'help with the work I already have' rather than 'extra work' take-up may be improved. The separation of dissertations from the methods training may also go some way to explaining why only half of those who carried out the course used any secondary analysis. While it is understood that the separation of the dissertation and the methods training took place to ensure student's dissertations remained their own work, due to this it is possible students still failed to see the relevance to their own research question. It is suggested that allowing students some time to work on their own dissertations while under supervision may go some way to addressing this.

The timing of the course in the academic year is also important. This study aimed to capture students at the end of the second semester of their second year. However, students suggested this needs to take place earlier in the second year. Students would also prefer it if the delivery of the course took place in shorter sessions at weekly intervals.

The Secondary Analysis for Sociologists course at Manchester was strong in its modes of delivery. A practical approach proved beneficial to students learning and the use of workbooks with step-by-step instructions to teaching statistical techniques appears successful in encouraging students to understand the applicability of methods to other areas of research.

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