Dissertations and their data: promoting research integrity in undergraduate projects

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About this resource

This pack has been designed to be used as a resource for encouraging better data management and research integrity in undergraduate dissertations, and is aimed at teachers supervising research projects and students undertaking them. The resource consists of a number of practical templates and exemplars, and a link to the slides for teaching is also included. These can be adapted and modified to suit various project needs and different disciplines.

Background

A session on this topic was first taught in a seminar in early 2018 on 'Thinking Ahead' for the Department of Sociology at the University of Essex to introduce the concept of research replication early on in the undergraduate dissertation cycle. Transparency and reproducibility have become ever more dominant narratives in the research landscape: that sharing of data that underpins research publications can help counter mistrust in research findings, eroded by various abuses of trust that have occurred in peer-reviewed publications from unverifiable results and faking of data. Further, while it is not widespread, dishonesty in academia is rising, with essays and dissertations being purchased, and promoting new guidance for Universities on how to deal with 'Contract Cheating' (QAA Contracting to Cheat in Higher Education: How to Address Contract Cheating, the Use of Third-Party Services and Essay Mills (QAA, October 2017)).

The efforts of the UK Data Service in this area in developing and sharing best practice have been fruitful, giving rise to a wealth of resources on managing and sharing data, including the well-received Sage Handbook on Managing and Sharing Data: A Guide to Good Practice.

Managing and documenting data

Carrying out research in a thorough and transparent way, and managing data safely are essential for any research project, but dissertations, in particular, put an extra strain on students to carefully manage and carry out a project, without much experience in the 'art' of research and while finishing their degrees.

When it comes to demonstrating robust research methods and analytic transparency there is also an advantage to producing material that can help encourage constructive conversation about data collection and data analysis with supervisors. A good data management plan can help students to:

- Create high quality data and research.
- Produce data and documentation which can help underpin findings.
- Foster debate around how to collect and analyse data in dissertation supervision meetings.
- Protect dissertation data from loss, destruction and potential exposure.
- Enable compliance with ethical codes and data protection laws.
- Enhance transparency of research and 'authenticate' your dissertation.

This pack provides real examples of good practice alongside inspiration of what good documentation and planning could look like for a student project. It is based upon templates and models of forms created and recommended by the UK Data Service to researchers, and includes templates for consent, transcription, anonymisation, and documentation, adapted to suit the needs of undergraduate students.

Learning objectives

This resource aims to help inform students of good data management practice, including appropriate ways to gather consent, transcribe, anonymise and document data. It can:

- Develop a critical approach to assessing research design.
- Understand how other real-life researchers have approached research design.
- Apply basic principles of data management to research projects.
- Help students gain awareness of, and the ability to, access and use the resources provided by the UK Data Service.

Accompanying material

- Slides for the undergraduate workshop
- A blog on the teaching module.

Citing this resource

This teaching pack is licensed under a Creative Commons license: Attribution-NonCommercial-ShareAlike International (CC BY-NC-SA 4.0).

The material can be used in your own projects, however we asked that if you use this resource for any written work, you should also reference this pack. The citation is:

University of Essex (2018) Dissertations and their Data: Promoting Research Integrity in Undergraduate Projects [Teaching Resource]. Created by UK Data Archive, UK Data Service.

Acknowledgements

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Data management checklist

Documenting

- If your supervisor needs to check your data will they be able to understand the data correctly?
- Are your quantitative and/or demographic data self-explanatory in terms of variable names, codes and abbreviations used?
- Have you written any descriptions or provided contextual documentation to explain what your data mean, how they were collected, and the methods used to create them?
- How will you label and organise data, records and files?

Formatting

- Are you using standardised and consistent procedures to collect, process, transcribe, check, validate, and verify data, such as standard protocols, templates or input forms?
- Which file formats will you use? Are the formats non-proprietary and based on open standards?

Storing

- Are your digital and non-digital data, and any copies, held in safe and secure locations?
- Have you protected personal or sensitive data?
- If data are collected with mobile devices, how will you transfer and store the data?
- If data are held in multiple places, how will you keep track of versions?
- Are your files backed up sufficiently and regularly and are backups stored safely?
- Do you know which version of your data files is the master?
- Who has access to which data during and after research? Is there a need for access restrictions?
- How long will you store your data for and do you need to select which data to keep and which to destroy?

Confidentiality, ethics and consent

- Are you collecting data from human participants? If so, do your consent forms permit you to share this information with your supervisor?
- Do you need to anonymise data, for example, to remove identifying information or personal data during research?

Copyright

- Have you established who owns the copyright in your data? Might there be joint copyright with participants?
- If you are purchasing or re-using someone else's data sources, have you considered copyright?

Example consent form

[Title of project]

Please tick the appropriate boxes.   Yes   No

Taking part

	Yes	No
I have read and understood the project information sheet dated DD/MM/YYYY.	☐	☐
I have been given the opportunity to ask questions about the project.	☐	☐
I agree to take part in the project. Taking part in the project will include being interviewed and recorded (audio or video).[1]	☐	☐
I understand that my taking part is voluntary; I can withdraw from the study at any time and I do not have to give any reasons for why I no longer want to take part.	☐	☐

Use of the information I provide for this project only

	Yes	No
I understand my personal details such as phone number and address will not be revealed to people outside the project.	☐	☐
I understand that my words may be quoted in publications, reports, web pages, and other research outputs.	☐	☐
I understand that the researcher's supervisors will have access to [anonymised] data.	☐	☐

*Please choose **one** of the following two options:*

I would like my real name used in the above.	☐
I would **not** like my real name to be used in the above.	☐

So we can use the information you provide legally

I agree to assign the copyright I hold in any materials related to this project to [name of researcher]. ☐ ☐

I provide my consent for [name of researcher] to process my personal data. ☐ ☐

_____   _____   _____

Name of participant [printed]   Signature   Date

_____   _____   _____

Name of researcher [printed]   Signature   Date

Project contact details for further information: Names, phone, email addresses, etc.

Notes:

1. Other forms of participation can be listed and more detail can be provided so that decisions can be made separately about audio, video, transcripts, etc.

Example transcription instructions

A Qualitative Exploration of Recovery from Bulimia Nervosa Investigator: Alice Jackson

Background to the research

Bulimia is very difficult to overcome, so how and why some people manage to recover is not very well understood. The term recovery also means different things to different people; clinicians have suggested various criteria but there is currently little attention to what recovery means to those who have actually lived and experienced the recovery process. The purpose of my research is to look at recovery from the point of view of former sufferers of bulimia. After conducting a number of in-depth interviews, I hope to yield a rich collective account of the difficulties encountered and the insights gained during the journey of recovery.

I am conducting this research as part of a PhD in the Department of Sociology at the University of London, under the supervision of Professor Jane Woodstock. My research is being funded by the Economic and Social Research Council (ESRC) and has been granted full ethical approval by the Research and Enterprise Office (REO) at the University of London. Due to the sensitive nature of this research, you will be required to sign a Confidentiality Agreement which confirms you will adhere to the principles of anonymity and confidentiality and will not speak about the content or nature of the interviews to anyone apart from myself.

Theoretical approach: verbatim transcription

Decisions about how transcription should be carried out are intimately connected with the type of analysis that is intended. Transcription of speech is always a compromise: greater detail gives more material for interpretation, yet too much detail can slow up the reading of the text in an artificial manner. This project requires full verbatim transcription. Taking a full verbatim transcription approach means that as well as preserving the actual words which were spoken, extra verbal material captured on the recording – such as the speaker's use of intonation, pauses, rhythm and hesitation – is also preserved. This keeps some of the additional meaning that was conveyed in the original interview, thereby providing contextual information as to the manner in which words were spoken. In addition, verbatim transcription requires that the character of the conversational exchange is apparent, so the words of the researcher must also be included.

General notes

- Document should include a header on every page with the serial number of the interview on the left hand side and your name on the right hand side.
- Insert page numbers at the bottom of each page, in the centre.
- Use Times New Roman, font size 12, type what the interviewer says in bold and justify the text.
- Identify the interviewer and the respondent separately and indicate the gender of the respondent. Use I: for the Interviewer and either F1: or M1: for the respondent depending on whether they are male or female (see attached example).
- Although I request that a record of what the interviewer says be included, the one exception to this concerns 'back channel utterances', i.e. where I can be heard in the background saying words such as "right", "yeah", "I see" or utterances such as "mmhhmm" whilst the interviewee is speaking. These function to encourage the respondent to continue speaking and reassure them that they are being listened to. It is not necessary to break up the respondent's speech by including them.
- Use punctuation as for normal written prose. Grammar should not be altered or "tidied up". Do not use 'eye spellings' (e.g. "enuff" for 'enough').

Things to include in full

- Unfinished questions or statements that trail off – indicate these with ellipses (…), for example: "I never did understand her approach, the way she saw it, or…"
- False sentence starts.
- Repeated phrases, words, statements or questions.
- Discussion that continues after the interview appears to be 'formally' finished.
- Non-lexical utterances or 'fillers' such as 'umms' and 'errs' and 'uhs'.
- Hesitations and pauses – indicate these with ellipsis (…), for example: "well…recovery to me…sort of means…err…"
- To indicate an exclamation of surprise, shock or dismay, use the standard exclamation mark.
- Emphases – indicate any emphasis on a word or phrase by putting it in italics.

Things to include in brackets

- Noises in background - for example (loud banging) or (door slams) or (muffled voices).
- The tone of the respondent. Here I am happy for you to include any comments on mood, feeling, passion, emotion and paralinguistics - for example: (laughs loudly) or (mumbles slowly) or (sounds angry) or (falters slightly) or (sighs).
- Unclear words or phrases must be marked where they occur within the text by placing the word "inaudible" in brackets and in bold e.g. (inaudible). Please do not guess at anything which you cannot understand.

After transcription

When you have completed transcribing an interview, please email it to me at [email address]. On receipt of the transcript I will confirm that you can then delete and destroy both the interview recording and the interview transcript in all its forms of storage – e.g. CD, WAV file, Word Document…

If there are large parts of the recording which you cannot understand or decipher, then please contact me immediately. Likewise, if you are concerned with any aspect of the transcription or these guidelines are unclear, then please do not hesitate to contact me on [mobile number] or at [email address].

Example transcriber confidentiality agreement

An Exploration of Recovery from Bulimia Nervosa Investigator: Alice Jackson

This research is being undertaken by Alice Jackson, PhD candidate in the Department of Sociology, University of London. The purpose of the research is to explore recovery from bulimia nervosa from the point of view of former sufferers.

As a transcriber of this research, I understand that I will be hearing recordings of confidential interviews. The information on these recordings has been revealed by interviewees who agreed to participate in this research on the condition that their interviews would remain strictly confidential. I understand that I have a responsibility to honour this confidentially agreement.

I agree not to share any information on these recordings, about any party, with anyone except the Researcher of this project. Any violation of this and the terms detailed below would constitute a serious breach of ethical standards and I confirm that I will adhere to the agreement in full.

I, _____ agree to:

1. Keep all the research information shared with me confidential by not discussing or sharing the content of the interviews in any form or format (e.g. WAV files, CDs, transcripts) with anyone other than the Researcher.

2. Keep all research information in any form or format (e.g. WAV files, CDs, transcripts) secure while it is in my possession.

3. Return all research information in any form or format (e.g. WAV files, CDs, transcripts) to the Researcher when I have completed the transcription tasks.

4. After consulting with the Researcher, securely erase or destroy all research information in any form or format regarding this research project that is not returnable to the Researcher (e.g. CDs, information stored on my computer hard drive).

_____   _____   _____
Name of transcriber (printed)   (signature)   (date)

_____   _____   _____
Name of research (printed)   (signature)   (date)

This study has been reviewed and ethically approved by the Research and Enterprise Office (REO) at the University of London

Example interview transcription

[Title of project]

Participant ID:

Date of Interview:

Information about interviewee: (e.g. Age, Gender, Occupation, Marital Status, Geographic region, etc. as relevant /appropriate)

R[1]:   I came here in late 1968.

I[2]:   You came here in late 1968? Many years already.

R2:   31 years already. 31 years already.

I: (laugh) It is really a long time. Why did you choose to come to England at that time?

R3:   I met my husband and after we got married in Hong Kong, I applied to come to England.

I: You met your husband in Hong Kong?

R2:   Yes.

I: He was working here [in England] already?

R2:   After he worked here for a few years -- in the past, it was quite common for them to go back to Hong Kong to get a wife. Someone introduced us and we both fancied each other. At that time, it was alright to me to get married like that as I wanted to leave Hong Kong. It was like a gamble. It was really like a gamble.

I: You were very brave to think about going abroad as you were so young at that time.

R3:   No. I was very innocent at that time. I was very obedient to my mum. The circumstance of my family was not very good. So I thought that if I married to someone whose financial situation was good, then it could help my family's finance.

I: Is that so? What rank are you?

R1:   I am the eldest.

I: You are the eldest sister.

R1:   Yes. I have two younger brothers and two younger sisters.

[1]R = Respondent/Interviewee (if more than one respondent, use R1, R2, etc.)

[2]I = Interviewer

Example anonymisation plan

Recommendations for anonymisation of "Pioneers of Social Research"

Background to the project

This qualitative study is a detailed examinations of the lives of significant researchers. In total, there are 38 interview transcripts which need to be anonymised to protect participant identities. Replacement procedures must be consistent throughout the anonymisation process. As this is an open collection with permission to share data, the overall approach is a "light touch" to anonymise any details which pose a major ethical issue. The level of anonymisation required by each of the interviews will vary subject to the degree of detail contained in each interview. This document contains a guideline to inform a standardised anonymisation procedure.

File management
- A copy of the original file is to be made; all changes will be made to the new file and the original file is to be kept until all anonymisation of the whole project is complete. Once anonymisation is complete, the original files will be stored under \noissue.
- Each interview is to be read in full. Any details which pose possible ethical issues are to be described in a separate document, along with the page number of the interview transcript, for review.
- After review, if changes are deemed to be necessary, demonstrate what has been changed within the transcript by placing square brackets around the anonymised word or phrase.
- No anonymisation log needs to be created. This document and the use of [ ], and the retention of unanonymised versions will be sufficient.

Mandatory anonymisation
- No changes are to be made to direct identifiers. Consent has been given to use real names.

Possible anonymisation
- Changes to the following details must be made on a case-by-case basis. Consider the context of where these details arise and whether or not anonymisation is absolutely necessary.

Reputation of researcher

- Any details which would diminish a researcher's reputation or established work should be flagged. Pseudonymisation or anonymisation will be executed accordingly.

Medical

- Any information which details the medical conditions of people other than the researcher or participants should be flagged. Relevant anonymisation procedures will be executed accordingly.

Sensitive material

- Any material deemed to be particularly sensitive (included details of legal cases, unfavourable opinions of others, or personal details) will be discussed with a manager, and the relevant anonymisation procedures will be executed accordingly.

Data list template

[Title of project]

[Researcher's name]

Participant ID	Date of birth	Gender	Occupation	Marital Status	Number Of Children	Ethnicity	Country Of Origin	Interview Summary	Place of Interview	Date of Interview	No of Pages	Pages Filename

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