SEVEN

QUALITATIVE SECONDARY ANALYSIS IN TEACHING

Maureen Haaker

CHAPTER CONTENTS

7.1 Introduction
7.2 The Landscape of Data Services
7.3 The Rise of Research-informed Teaching
7.4 Existing Infrastructure to Support Research-informed Teaching
    7.4.1 Teaching datasets
    7.4.2 Teaching resources
7.5 Cultural differences between higher education and data services
    7.5.1 Allocation of resources
    7.5.2 Familiarity and knowledge
    7.5.3 Attitudes of risk toward re-use
7.6 Conclusion
7.7 References

7.1 Introduction

Usually when we think of re-using data, we often think about a secondary analysis project or re-study. However, data re-use projects can include a creative array of possibilities, including re-using data in teaching. This chapter seeks to:

- explore the landscape of data services and the involvement of data services in the education sector;
- signpost to existing teaching resources and the key skills these resources can help develop for students;
- highlight key benefits and considerations for re-using data for teaching.

7.2 The Landscape of Data Services

Archiving data has a rich history dating back to the 1960s, and largely starts with the efforts of survey researchers who wanted to share their data with other researchers. Scheuch (2006) documents this history in detail and credits the start of data services with an initiative by Elmo Roper, one of the founders of survey research. In 1945, Elmo Roper gifted boxes of IBM punch cards from his 1930s surveys to his university library. His day-to-day operations of survey research saw that survey data were a vastly underutilised resource of significant historical value. With this awareness, he encouraged one of his colleagues, George Gallup, to follow suit. With a growing and substantial amount of data available, the library created a separate unit in 1947 to house these collections. In 1957, this section of the library became the Roper Center and was opened to the public. Among those who visited the Center was Erwin Scheuch, who was both inspired by the centre but also daunted by the challenges of re-using data that were archived without a finding aid, inventory, or any other documentation. In 1962, Scheuch collaborated with other survey researchers at the First Conference on Social Science Data Archives in La Napoule and, from that, established the basic principles needed to begin building basic infrastructure for the archiving of research data.

By the 1970s, the movement to build data archives was well under way; however, these efforts were not without objection. The arguments against the archiving and re-use of data claimed that there is insufficient knowledge surrounding the conditions under which data was collected, a lack of contextual knowledge of the social and political context under which data was collected, and no clear finance strategy to fund these efforts. To confront these issues, it was deemed necessary to ensure data services had sufficiently trained staff, resources, and clear cataloguing and documentation so researchers would be able to easily navigate collections. Slowly, an informal network of data services began to form throughout North America

and Europe. The approach and funding for data services varied considerably between regions and institutions. Although researchers could visit and use single collections, it was impossible to look across datasets without a clear standardisation of the collections. A key issue for researchers to resolve was that it was nearly impossible to conduct cross-national, cross-cultural, or comparative analysis even when similar data existed across different services.

To tackle this issue, a pioneering network of social scientists, librarians, information technology professionals, and data archivists came together in 1974 to form the International Association of Social Science Information Services and Technology (IASSIST). The primary concern of the group was to create the tools needed to facilitate advanced analysis and, specifically, comparative research. This 'data community' of social scientists and data services began the process of setting out standards for data inventories, manuals of data classification, and information guides for researchers, which eventually allowed researchers to effectively work across datasets and even across institutions (O'Neill Adams, 2006). As data services continued to develop their practices and, in turn, enhance the collections they held, data re-use became a well-established practice, particularly within the quantitative tradition of social science research, as a way to take advantage of the full value of data.

By the mid-1990s, some public research funders in the UK began outlining data-sharing policies which mandated the sharing of data that was conducted using taxpayer-funded grants, including qualitative research projects (Corti et al., forthcoming). To ensure that qualitative data could be archived according to these policies, Louise Corti and Paul Thompson established the Qualidata Resource Centre at the University of Essex in 1994 (Corti and Thompson, 1996). This was among the earliest initiatives to build infrastructure for qualitative, social science data, and it provided a single point of access of information about the extent and availability of qualitative research material deposited in public repositories. As collections for qualitative studies grew, so did the infrastructure for qualitative data. Since the establishment of Qualidata, other qualitative archives (including Timescapes, the Irish Qualitative Data Archive, ARK Qualitative Data Archive, UCL Human Communication Audiovisual Archive, and Australian Qualitative Data Archive) have been established to fulfil the needs of qualitative researchers wanting to share their data. The last ten years, especially, has seen an explosion in the number of archives specialising in qualitative data, the number of requests to re-use qualitative datasets, and the number of publications mentioning secondary analysis of qualitative data (Bishop and Kuula-Luumi, 2016). In 2015, the National Centre for Research Methods formally recognised 'secondary analysis of qualitative data' as a methodology, one of the many developments which cemented the re-use of qualitative data as an important consideration for data services.

While the re-use of qualitative data has been one area of change within data services over the past decade, there continues to be several other developments within data services. One of the most influential changes in recent years has been the framing of research data policies around the Concordat on Open Research Data (UKRI, 2016). Launched in 2016, the Concordat for Open Research Data outlines ten principles to promote the sharing and publication of data. Alongside outlining the call to curate open and citeable data (where it is deemed appropriate to do so), it also specifies that those involved in research need to consider effective research data management strategies. As data sharing policies are reviewed and updated, this Concordat will help to shape and extend policies, and it will likely see data sharing becoming a standard in research practice.

Beyond the policy changes, advances in technology have also changed the face of data services since their inception 70 years ago. Specialist data archives are able to offer expertise in standards in handling and managing a range of different types of data, and initially were set up with a physical capacity to digitise hard copies of data to this standard. Now, however, data is digital from the start of its life cycle. Consequently, new ways of being able to search, catalogue, and, perhaps most importantly, cite data (using persistent identifiers, such as DOIs) have changed the way data services ingest, process, and disseminate data collections. Researchers can now self-publish data in generic repositories, such as Harvard's Dataverse, Figshare, and Open Science Framework, and assign their own persistent identifiers for others to re-use and cite the dataset. New initiatives, like Google's Dataset Search, have aimed to help re-users to find this data no matter where it is published. As long as data is discoverable (that is, it has basic metadata that allows it to be found through a simple search), data can be archived anywhere. Data services will have to carefully consider how this influx of data can be quality checked and – most importantly – how to offer the necessary skills training to ensure that researchers are fully equipped with knowledge of how to meet the standards of data archiving. Looking forward, data services will not only be an end point for researchers looking to deposit data after a project is over, but also be more actively involved with data management from the start of research projects.

Perhaps one of the more interesting changes in data services operation has been their relationship to the education sector and the re-use of data for teaching purposes, particularly for qualitative data. Bishop and Kuula-Luumi (2016: 6) showed that 64% of the downloads of qualitative data at the UK Data Service were re-used for teaching and learning, writing that '[a]lthough there is sometimes a tendency to privilege data re-use for research, the widespread use across several levels of education is clearly enriching teaching by the use of real data.' The relationship between archives and higher education benefits both: teachers who re-used data

have commented about how it enhances learning and 'is effective in engaging student interest', and, for archives, the promotion of specific collections within teaching settings has a clear impact on the reach and significance of that dataset (Bishop and Kuula-Luumi, 2016: 6). Although data services were conceived with the idea that they would supply data for 'genuine researchers' to re-use, their role has expanded to allow re-users more scope and creativity in their re-use projects. Some archives have gone as far as to develop specific education strategies, such as the National Archives' (2018) *A Guide to Collaboration between Archives and Higher Education*, which explores methods for further outreach and engagement with undergraduate and postgraduate students. As this pattern of re-use continues, it is likely that more archives will formally recognise their relationship to the education sector.

7.3 The Rise of Research-informed Teaching

Although a pattern of re-use for purposes of teaching has become clearer in recent years, the reciprocal relationship between data services and education is not driven entirely by data services. Higher education, specifically, has its own goal to provide 'research-informed teaching'. Since the 1960s, higher education institutions (HEIs) have sought to show that use of research (and its data) in teaching and success in learning are inextricably linked (Griffiths, 2004). To test this, Hattie and Marsh (1996) conducted a meta-analysis of 58 studies which sought to understand the relationship between research and learning. Their conclusions were mixed: they found nothing to suggest that learning was best done within a research-intensive setting. However, they went on to conclude that they cannot make the claim that *teaching* is not better for involving research. In other words, there may be a benefit to pedagogy for being research-based. Hattie and Marsh (1996: 533) thus concluded, '[U]niversities ought to set as a mission goal the improvement of the nexus between research and teaching … to increase the circumstances in which teaching and research have occasion to meet.' From the mid-1990s onward, ways to facilitate a research/teaching nexus became a priority for higher education, spurring questions about the best ways to bring data into the classroom.

In the early 2000s, research projects such as Project LINK (Griffiths, 2004) and the Research-led Teaching and Learning Project (Zamorski, 2002) began to systematically explore some of the more innovative ways research was being used in teaching. In 2005, the Higher Education Funding Council for England (HEFCE) introduced grants to support further examination of the teaching/research nexus. Funded by this HEFCE grant, Healey and Jenkins (2009: 7) modelled four types of 'research-informed teaching':

- research-led – learning about research in the discipline;
- research-tutored – engaging in research discussion;
- research-oriented – developing research and inquiry skills;
- research-based – undertaking research and inquiry.

Healey and Jenkins (2009) emphasised that the latter two methods of research-informed teaching encouraged students to actively immerse themselves in research activities, rather than simply being passive recipients of information derived from research.

Equipped with a framework with which to develop teaching strategies, higher education asked institutions to develop their 'research-informed teaching' and ensure data was brought into the classroom. After 2018, this ambition was formally acknowledged with the introduction of the Teaching Excellence Framework (TEF). The framework is aimed at incentivising good pedagogy, using measures such as student satisfaction and employment outcomes. The policy also specifically commends research-informed teaching, as defined by Healey and Jenkins (2009). In the first TEF exercise, completed in 2018, there was a huge variation between institutions on how they evidenced their research-informed teaching. Some universities relied on their scores from the Research Excellence Framework to show that those teaching were also involved in high-quality research, whereas others drew attention to their education strategies and emphasis on 'building research-based and research-led curricula' (Beech, 2018: 24). The traditional way of demonstrating research-informed teaching is to require students to complete a small-scale research project within their mandatory research methods modules. Typically, students are asked to develop a research question, collect a small amount of data, analyse the data, and write a research report which often serves as the final piece of assessment for the module. However, while this method provides hands-on experience and allows for some decision-making within the research process, it is also usually prefaced by an internal, ethical review board. The process can take up valuable class time and place strict conditions on research activities which do not reflect how research is conducted in real life. Recent years has seen a movement toward proportional review of student projects, which aims to streamline the ethical review process and keep requirements realistic to the level at which students are working (Hunter, 2007). There is still variation in the guidelines for a student-friendly ethical framework (see for example Lowney, 2014, for a discussion on ethical consideration for student research projects), highlighting the tension between assessing risk and encouraging students to learn about research by 'doing'. Consequently, there still exists a gap between how a teacher can practically introduce students to the complexities of the research process and how the student can have a personal experience of real-world research.

Moreover, as Elman and colleagues (2015: 39) also point out, 'simply carrying out a research task, isolated from the research design and epistemological justification which motivated it' does not necessarily teach the most important aspects of research and its impact on knowledge creation. Without adequate time and preparation to go through these processes, students can lose out on a nuanced understanding of the very lessons meant to be taught by research-informed teaching. Learning about research needs to expand beyond a rote memorisation of how research is done: it needs to explain why research is done in a particular way. This involves explaining how knowledge is derived from research, how consensus on those conclusions are formed, and how claims can be challenged. It also involves demonstrating how different methods contribute new perspectives. A small, independent research project has its place in helping students understand the research process from start to finish; however, the data allows students to explore the limitations of that knowledge and encourages them to continue their search for alternative perspectives. Re-using data thus not only satisfies the policies and requirement of higher education, but it also unlocks a new potential in students to engage with their learning in a more critical way.

7.4 Existing Infrastructure to Support Research-informed Teaching

Despite the acknowledgement of the benefits of bringing data into the classroom, there are still concerns about the relevance, availability, and accessibility of data to re-use. The proliferation of qualitative-specific archives and increasing numbers of qualitative datasets available, improved standardisation and function of search tools, and easily downloadable, digital-born datasets all align to present new opportunities for re-use. These dramatic improvements in the infrastructure for qualitative data archives are understood to enrich a re-user's consumption and experience of the data and bring people closer to the evidence (Corti and Fielding, 2016: 10). For example, Jo Haynes, a frequent re-user of qualitative data, shared this experience with her postgraduate students. Faced with the task of getting students to do qualitative data analysis as part of a 12-week course, Haynes asked students to undertake a secondary analysis assignment from a selected number of datasets held at the UK Data Service (Haynes, 2011). As part of the assessment, Haynes explained that the students had the choice to either come up with an original research question or find a new way to work with the data. Part of the motivation to have students re-use data, rather than collect their own, was to allow them more time to develop analytical skills.

Additionally, students benefited from having to generate multiple perspectives of their chosen dataset and craft diverse arguments and findings out of the data, sometimes beyond what the original researchers found. Haynes (2011) noted that it was 'also a really good way to engage with research that has already been done and to reach a critical dialogue with the British research'. The module was seen as a success, even resulting in one of Haynes' students publishing her results (Haynes and Jones, 2012). Haynes reflects with Jones on the two analyses produced within this class, as well as the deeper understandings of conducting research that came out of re-using data. Although students were working with just a selected sample curated specifically for learning purposes of a larger, archived dataset, Jones, one of the students, was still able to find similar themes as the original investigator. Her publication expands on the substantive similarities, as well as a few differences, between her analysis and the analysis of the original investigator. Alongside this comparison, two key points about analysing data are also discussed. One conclusion reached was that all interactions with data are mediated and interpreted throughout the research process, and thus critical reflection should be a part of the analysis. Following on from this, the other conclusion was that the two, similar analytic conclusions suggest that qualitative data is not wholly dependent upon the researcher for its conclusion. Rather, data can and does exist independently of the research process, so reflexivity should not only reflect on the conditions of data production from the vantage point of the researcher, but also reflect on the world in which the research took place. In terms of students learning to assess methodological rigour, these points show the value that can be obtained from using the teaching dataset and teaching resources available through data services.

7.4.1 Teaching datasets

Teaching datasets are specially curated datasets and user guides which have gone through a process of data reduction to make the datasets of a more feasible size and scope for students to explore within a limited time frame. The simplified versions of datasets give students both a realistic amount of data to explore and documentation curated to provide straightforward but thorough background to the methods. Where possible, these teaching datasets include a range of material, including video, audio, and more traditional word processing formats. Lastly, these datasets are also created from high-quality collections which provide a glimpse into good practices of qualitative research, and may include not-so-often-seen documentation such as anonymisation plans, transcription guidelines, and interview schedules.

For example, the teaching dataset for the School Leaver Study, available through the UK Data Service, provides data samples from the original 1978 School Leavers

Study as well as a re-study conducted in 2010 by Graham Crow (see Lyon and Crow, Chapter 9). Table 7.1 outlines what is available in these two collections. The left column looks specifically at the original study, noting the many more essays available and the advanced methodological documentation that sits alongside this data. The right column notes the size of the curated sample of the essays, as well as more interactive documentation. The student-friendly documentation also includes more detail on the analysis of the data, opening opportunities for students to explore all stages of the research process in more detail.

Table 7.1 Comparison between School Leavers Study 1978 and the School Leavers Study teaching dataset

School Leavers Study 1978	School Leavers Study teaching dataset, 1978 and 2010
141 essays from 1978	10 essays from 1978
Documentation: processing notes	10 essays from 2010
Documentation: article and book chapter on methodology	Methodology video presented by Graham Crow explaining the advantages and disadvantages of the method used, specifically made for student level
	Coding frame from analysis
	Transcription guidelines
	Reference list of related publications

This teaching dataset is not restricted for use in the classroom, however. QSR International have re-used this dataset for training materials of their NVivo products. The diversity of file formats, the size of the essays, and the availability of the coding frame made it ideal to demonstrate the analytic capabilities of NVivo analysis software packages.

The diversity of data available to re-use for teaching – whether it is already curated or re-users have curated their own sample to meet the needs of their classroom – exemplifies the analytical possibilities. Data in the form of focus group transcripts, interview transcripts, short essays, fieldnotes, and visual materials is available to show students the range of methodological tools available. Students can also learn to assess datasets to better understand methodological integrity or evaluate the relevance of datasets to explore what data collection questions are needed to answer research questions. If re-using the data to teach critical analysis skills, students can compare their results to results of the previous study, as was done in the case of Haynes and Jones (2012), or try a new analytic strategy. Social inquiry can also be stimulated by having students ask new questions or focus on new topics

arising from the data that are different from that of the original researcher. Teaching datasets are flexible to the needs to lessons being taught and pose opportunities to develop a range of critical skills.

7.4.2 Teaching resources

In addition to teaching datasets, there are a number of resources which target learning about concepts, theories, and methods. Haaker and Morgan-Brett (2017) detail their experiences of using these resources in the classroom, and how they were received by students. They point out that these resources not only present new information to students but also can help them to build their own research and analytical skills. For example, students can use real interviews and interview schedules to see how researchers build rapport and how research questions build up to answer larger research questions. In one specific example, they detail a teaching resource derived from Hollway and Jefferson's (2003a) 1995 study *Gender Difference, Anxiety and the Fear of Crime*. In this resource, they are guided through the pilot interview schedule and compare this to the final interview schedule. Students can see how the researchers' initial style of interviewing did not lead to the results they had anticipated (Hollway and Jefferson, 2003a). They found that participants displayed defence mechanisms when discussing sensitive issues and that a standard interviewing style was not the best way to explore these issues. From this pilot they developed the Free Association Narrative Interviewing Method, which was a unique and highly successful way of accessing these more difficult and emotional stories (Hollway and Jefferson, 2000). Within the resource, students are asked to read further into this new interviewing style and make connections between the theory and subsequent research method. The resource not only explores the final publications resulting from the study, but also engages students in the original aims and objectives of the study, noting that:

> In psychoanalytic theory, anxiety precipitates defenses against the threats that it poses to the self, such that ideas and feelings which arouse anxiety are lost to conscious thought. This proposition has profound implications for method. We aimed to develop an appropriate interview method (which at the beginning we called 'quasi-clinical'). Our development of the 'narrative interview method' is probably the most important outcome of this project, because of its widespread implications for social science research. (Hollway and Jefferson, 2003b: 6)

Through highlighting the trials and errors of their original method, and demonstrating their redevelopment of the interviewing technique, this resource based on Hollway and Jefferson 1995 study documents the often-disordered nature of doing qualitative research and how this can lead to some of the most important research

outcomes. The resource thus takes a more guided approach to these realisations than teaching datasets but is nonetheless just as effective.

Data archives already provide a range of similar teaching resources. The Timescapes Archive, for example, has developed numerous guides and multimedia resources, including the Timescapes Methods Guide series, which explains methodological debates and basic research skills as explored through the curation and re-use of its qualitative, longitudinal data (Timescapes, 2012). These resources aim to address specific research skills, such as how to formulate interview questions and how to use time lines and relational maps to visualise time. The Irish Qualitative Data Archive also has a series of resources for students, and makes available audio and text extracts from life-history interviews to help students learn key sociological concepts and how these are represented within real-world research (IQDA, 2015). Finally, the UK Data Service provides a range of qualitative teaching resources, which vary from self-led resources with 'activity stops' to tutor-led teaching packs. One of their most recent additions, for example, is *Dissertations and their Data*, a collection of resources to aid basic data management of an undergraduate research project. The pack provides students with a basic checklist of research data management points and templates for informed consent, transcription approaches, and anonymisation plans (UK Data Service, 2018). Case studies published by the UK Data Service (2015b) demonstrate some examples of how teachers have used these resources in the classroom and in assignments. All of these resources are freely available and offer new opportunities to make teaching truly research-informed.

Beyond guided teaching resources, there are also interactive tools which can help students explore qualitative research data. For example, QualiBank is an online tool which allows users to search, browse, and cite qualitative data. While most database search engines, including Google Dataset Search and many archival catalogues, search through structured metadata about the dataset (which might include anything from more expansive abstracts to simple fields filled in about the methodology of the study), QualiBank searches through the data itself, bringing back search results where keywords are actually mentioned by participants. This not only allows students to think more about the importance of the participant's voice in research, but also stresses the importance of 'getting into the data' to really understand the qualitative dataset. QualiBank additionally allows users to cite the data line by line. The reference generated by QualiBank creates a persistent identifier which can be traced back to the specific line in the data that was being referenced. Often the significance of citations is unrealised, as it requires further work to track down the item cited to understand how it was used. Sometimes, it is not even clear whether the citation is a supportive, challenging, or even a tangential idea to the point being made. Using a tool like QualiBank allows students the

opportunity to quickly retrieve and closely inspect the evidence used, and further elaborate on what role the reference is playing within their work. It also allows teachers scope to explain the significance of citation within academia. Beyond interactive tools like QualiBank, archives also offer a more traditional range of face-to-face workshops, webinars, and video tutorials (UK Data Service, 2015a). All of these resources can help enrich the student experience and bring classroom lessons to life.

7.5 Cultural differences between higher education and data services

Despite the recent coordination between higher education and data services, there still exists a cultural gap between the processes and vision of the two sectors. Many of the existing resources required the collaboration of people working together from across higher education and the data services over a sustained period of time. Commonly cited barriers to this kind of collaboration are often based in resource allocation, the familiarity with archive services and discoverability of relevant, archived material, and attitudes toward risk of re-using data for teaching, particularly when it applies to qualitative data (National Archives, 2018). While not insurmountable, there is scope for both the education sector and data services to better understand how each other work which will better utilise the value of the data held within archives.

7.5.1 Allocation of resources

Creating teaching resources and curating teaching datasets takes time and money. To assess what gets allocated further resources, data services regularly collect information to produce statistics which align with the Chartered Institute of Public Finance and Accountancy (CIPFA) statistics. This involves basic tracking of how many people have used which resources and what number of times. It is this data that Bishop and Kuula-Luumi (2016) analysed to better understand how qualitative research data was being re-used. Based on this, further resources can be allocated to ensure archives are responding to the needs and wants of what re-users are using. In this instance, citation is a key factor in ensuring that data services know how many are using teaching resources and for what purposes. Conversely, higher education, however, is assessed through assessment frameworks like TEF and REF, which look at factors like impact, outputs, and student satisfaction. Re-using data for teaching can still aid HEIs needing to abide to these frameworks by evidencing pedagogical practice through impact case studies of data re-use or

supplying evaluation and feedback from data-services users (including students) on those resources. When teaching resources are created, these can also be published through archive websites, creating not only another output, but also potential for further evidence of how it is re-used, by whom, and how often. As HEIs and data services continue to build on their collaborative efforts to share out allocation of resources, both sectors will be able to benefit from the harmonisation.

7.5.2 Familiarity and knowledge

Getting to know a dataset well enough to create a teaching resource imposes on teaching staff who may simply not have time to explore datasets in this kind of detail. Conversely, archive staff hold an intimate familiarity of the material held, including material which is uncatalogued or undigitised, but may not know what kind of resources teachers want. These are issues that are easily solved through coordination, but sometimes the limitations are not always obvious. For example, in 2014, Bethany Morgan-Brett stumbled upon a previously undigitised collection of Stan Cohen, *Mods and Rockers*. Initially, the goal was to digitise this quickly degrading, paper-based collection because of its importance to criminology. Seeing an opportunity, Morgan-Brett decided to make a teaching resource based on the collection which guided students through the original study all the way through Cohen's theories on deviance and moral panics. However, much of this collection depended on news clippings, which were still under copyright on the newspapers in which they were published. Working with the archive on the teaching resource immediately addressed the issue of copyright and put forward a plan to ensure enough material was available to complete the resource. The restrictions of copyright made it impossible to make the entire collection available through the archive; however Morgan-Brett was able to contact the newspapers holding the copyright on the selected sample of newspaper clippings to ask permission for those specific articles to be re-published online within this resource. In the end, the teaching resource was published through the UK Data Service website, which not only raises awareness of the existence of this previously undigitised material, but also allows for students to see how such prominent theories were developed. Data services can provide expertise on what is available and any restrictions on reproducing these materials for teaching resources.

7.5.3 Attitudes of risk toward re-use

The arguments against making data available for re-use detailed at the beginning of this chapter – including insufficient knowledge surrounding the conditions

under which data was collected, a lack of contextual knowledge of the social and political context under which data was collected, and no clear finance strategy to fund these efforts – continue to be debated as re-uses for data become more creative. The re-use of data by students, in particular, can raise doubts about whether students have enough methodological knowledge to really understand and re-use the data 'well enough'.

Although few in number, some data depositors also specify that data can only be re-used for non-profit research purposes, and not teaching purposes. Data services' assessment of risk in this type of re-use may be different from that of educators and researchers. As this area of re-use continues to grow, some of these issues can be addressed in the design and implementation of the teaching resources. As data sharing and re-use becomes more of a norm, it is likely that different ideas of risk will begin to synchronise. Nonetheless, it is important to check with data depositors or the licensing agreement to see if such restrictions have been placed on the collection before time and effort is put into developing a teaching dataset or teaching resource.

7.6 Conclusion

Re-using data for teaching inspires the dynamic discussion, investigation, and evaluation of research design and facilitates the 'pedagogical culture' (Wagner et al., 2010). The selection of teaching resources available reflects the years of engagement between education and data services and explores an expansive value that data holds for research-informed teaching. Namely, these resources can scope out new analytical possibilities of data, develop a fuller range of research skills in students, and raise the profile and impact of educators. With the increasing call for research-informed teaching and innovative practices, particularly within higher education, re-using data in teaching offers the potential to demonstrate this creativity and convergence between teaching and research. Moreover, re-using data for teaching enhances the value of archived data and can benefit both the education sector and data services.

7.7 References

Bishop, L. and Kuula-Luumi, A. (2016) 'Revisiting qualitative data reuse: A decade on', *SAGE Open*, 7(1). DOI 10.1177/2158244016685136.

Beech, D. (2018) *Going for gold: lessons from the TEF provider submissions*, Higher Education Policy Institute. Available at: https://www.hepi.ac.uk/wp-content/

uploads/2017/10/FINAL-HEPI-Going-for-Gold-Report-99-04_10_17-Screen.pdf (accessed 8 July 2019).

Corti, L., Van den Eyden, V., Bishop, L., and Woollard, M. (forthcoming) *Managing and Sharing Research Data: A Guide to Good Practice*. London: Sage.

Corti, L. and Fielding, N. (2016) 'Opportunities from the digital revolution: Implications for researching, publishing, and consuming qualitative research', *SAGE Open*. DOI 10.1177/2158244016678912.

Corti, L. and Thompson, P. (1996) 'Qualidata', *Sociological Research Online*. Available at: www.socresonline.org.uk/1/3/qualidata.html (accessed 24 May 2019).

Elman, C., Kapiszewski, D. and Kirilova, D. (2015) 'Learning through research: Using data to train undergraduates in qualitative methods', *PS – Political Science & Politics*, 48(1): 39–43.

Griffiths, R. (2004) 'Knowledge production and the research–teaching nexus: The case of the built environment and disciplines', *Studies in Higher Education*, 29(6): 709–26.

Haaker, M. and Morgan-Brett, B. (2017) 'Developing research-led teaching: Two cases of practical data reuse in the classroom', *SAGE Open*, 7(2). DOI 10.1177/2158244017701800.

Hattie, J. and Marsh, H.W. (1996) 'The relationship between research and teaching: A meta-analysis', *Review of Educational Research*, 66(4): 507–42. DOI 10.3102/00346543066004507.

Haynes, J. (2011) *Teaching Case Study: Getting Students to do Data Analysis in a 12-week Unit*, UK Data Service. Available at: http://ukdataservice.ac.uk/use-data/data-in-use/case-study/?id=22 (accessed 24 May 2019).

Haynes, J. and Jones, D. (2012) 'A tale of two analyses: The use of archived qualitative data', *Sociological Research Online*, 17(2). Available at: http://www.socresonline.org.uk/17/2/1.html (accessed 24 May 2019).

Healey, M. and Jenkins, A. (2009) *Developing Undergraduate Research and Inquiry*. York: Higher Education Academy.

Hollway, W. and Jefferson, T. (2000) *Doing Qualitative Research Differently: Free Association, Narrative and the Interview Method*. London: Sage.

Hollway, W. and Jefferson, T. (2003a) *Gender Difference, Anxiety and the Fear of Crime, 1995* [data collection], UK Data Service, SN: 4581. DOI 10.5255/UKDA-SN-4581-1.

Hollway, W. and Jefferson (2003b) *User Guide: Gender Difference, Anxiety and the Fear of Crime, 1995* [data collection], UK Data Service, SN: 4581. Available at: http://doc.ukdataservice.ac.uk/doc/4581/mrdoc/pdf/q4581uguide.pdf (accessed 24 October 2019).

Hunter, D. (2007) 'Proportional ethical review and the identification of ethical issues', *Journal of Medical Ethics*, 33(4): 241–5.

IQDA (2015) *IQDA Resources for Students*, Irish Qualitative Data Archive, University of Maynooth. Available at: www.maynoothuniversity.ie/iqda/data-resources/resources-students (accessed 24 May 2019).

Lowney, K.S. (2014) 'Ask *Teaching Sociology*: What should faculty consider before having students conduct research in a class?', *Teaching Sociology*, 42(3): 240–4.

The National Archives (TNA) (2018) *Guide to Collaboration between the Archive and Higher Education Sectors*, the National Archives and Research Libraries UK. Available at: www.nationalarchives.gov.uk/documents/Guide_for_archives_to_collaborate_with_Higher_Education.pdf (accessed 24 May 2019).

O'Neill Adams, M. (2006) 'The origins and early years of IASSIST', *IASSIST Quarterly*, 5(14): 5–13.

Scheuch, E.K. (2006) 'History and visions for the development of data services for the social sciences', *International Social Science Journal*, 53(4): 384–99.

Timescapes (2012) *Timescapes Methods Guide Series*, Timescapes, University of Leeds. Available at: www.timescapes.leeds.ac.uk/about/timescapes-methods-guide-series.html (accessed 24 May 2019).

UK Data Service (2015a) *Teaching Resources: Qualitative and Mixed Methods Data*. Available at: www.ukdataservice.ac.uk/use-data/teaching/teaching-resources/qualitative.aspx (accessed 24 May 2019).

UK Data Service (2015b) *Case Studies*. Available at: https://beta.ukdataservice.ac.uk/impact/case-studies/ (accessed 24 May 2019).

UK Data Service (2018) *Dissertations and their Data: Promoting Research Integrity in Undergraduate Projects*. Available at: www.ukdataservice.ac.uk/media/622144/dissertations_and_their_data_promoting_research_integrity.pdf (accessed 24 May 2019).

UK Research and Innovation (UKRI) (2016) *Concordat on Open Research Data*. Available at: www.ukri.org/files/legacy/documents/concordatonopenresearchdata-pdf/ (accessed 24 May 2019).

Wagner, C., Garner, M. and Kawulich, B. (2010) 'The state of the art of teaching research methods in the social sciences: Towards a pedagogical culture', *Studies in Higher Education*, 36(1): 75–88.

Zamorski, B. (2002) 'Research-led teaching and learning in higher education: A case', *Teaching in Higher Education*, 7(4): 411–27.