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Opening up and Sharing Data from Qualitative Research: A Primer

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Isabel Steinhardt et al.

Opening up and Sharing Data from Qualitative Research: A Primer

Results of a workshop run by the research group „Digitalization and Science“ at the Weizenbaum Institute in Berlin on January 17, 2020

Opening up and Sharing Data from Qualitative Research: A Primer

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1 Foreword

The call for free access to research data and materials is becoming louder and louder from the political and scientific communities in Germany. More and more researchers are facing demands to open up qualitative research data for scientific purposes. They often have a general interest in sharing their data, but are unsure how to proceed. This handout was developed to provide an initial introduction to opening and sharing qualitative data. It was developed at a workshop held in Berlin in January 2020, organized by the research group „Digitization of Science“ of the Weizenbaum Institute, together with its associate researcher Dr. Isabel Steinhardt from the University of Kassel. The workshop involved staff from German research data centers as well as mentees and mentors from the Fellow Program Open Science[1] who already have experience with Open Science, qualitative research, and interdisciplinary research. The handout is addressed primarily to qualitatively researching scientists in Germany. For this reason, it was initially written in German. One year later, we have now decided to translate the handout into English as well. The reasons are twofold: first, we want to make it accessible to researchers in Germany with little knowledge of German. Second, we also want to give interested people outside Germany an insight into the German system and the German discussion about opening up and sharing qualitative data. Due to the objectives and the history of its development, the handout focuses on the German context. This includes the literature references and further sources, and the references to research data centers as well as legal issues. We have deliberately not included a contextualization of the German situation in international discussions in order to keep the handout as short as possible.

2 Introduction

The demand for research data and materials to be made accessible has become louder in recent years, driven by political actors and funders, but also by science itself, e.g. through the Open Science movement. The term open science includes various sub-areas such as Open Access, Open Source or Open Educational Resources. In the following, we will focus specifically on the sub-area of Open Data, i.e., the accessibility of data. While the principle of accessible data has already taken root in quantitative social research, qualitative research is faced with other challenges in making data accessible, for which solutions must be found in cooperation with all the relevant actors. These solutions must, for example, do justice to the specifics of qualitative data types, field-specific methodological approaches and the relationship between researcher and participant. An increasing number of researchers now face demands to open up qualitative research data for scientific purposes, but even if they have a general interest in opening up their data, they also face the associated challenges, making it difficult to know how best to proceed.

The aim of this primer is to answer basic introductory questions on the subject of opening up and sharing qualitative research data. By opening up and sharing data, we mean making data accessible for secondary use for other researchers. In this guide, we will address the differences between different research

[1] https://en.wikiversity.org/wiki/Wikimedia_Deutschland/Open_Science_Fellows_Program/Program

fields and their specific requirements in dealing with qualitative research data, taking into account the differences between different types of data (e.g., interview transcripts, video recordings, observation logs, primary and context data). For a fundamental discussion of the concept of (qualitative) research data, we refer the reader to the relevant specialist literature (e.g., Corti 2000; DGS 2019; Hirschauer 2014; Hollstein & Strübing 2018; Kretzer 2013).

Generally, there are reasons that speak in favor of opening up and sharing, but also concerns and risks (Akademie für Soziologie 2019; Birke & Mayer-Ahuja 2017; Corti & Thompson 2006; Dunkel, Hanekop & Mayer-Ahuja 2019; Gebel, Rosenbohm & Hense 2017; Kühn 2006; Laudel & Bielick 2019; Richter & Mojescik 2019; Rosenbohm, Gebel & Hense 2015; Steinhardt 2018; von Unger 2018). Arguments in favor of opening up and sharing data for primary research are citation boosts for citable data sets and research results, the increased visibility of the empirical data collection process, and the possibility of networking. Secondary researchers can use open data to find contrasting data or additional data for their own research without dedicating resources to the generation of new data for these purposes. The secondary use of research data can also contribute to further development for the entire research field, for example with regard to methodological questions, by avoiding "over-questioning", by reusing data for teaching, and by gradually accumulating more extensive and systematic databases. Since qualitative data cannot be replicated, the long-term preservation of this data is of enormous importance, also for historical reasons.

Despite these benefits, the archiving, provision and reuse of data is not yet a common practice in qualitative social research (Hollstein & Strübing 2018). This is due, on the one hand, to the interwoven nature of the data collection, processing, analysis and interpretative steps of qualitative research and, on the other hand, to the iterative and alternating epistemological process that goes hand in hand with the ongoing contextualization of the collected data. In addition, the various types of data (e.g. images, videos, interviews, observations, documents) and the different data collection and evaluation procedures in the various fields must be taken into account if research data is to be opened up and shared. The individual researcher also faces the challenge of deciding whether and which of their own data can be shared and be made available for reuse, and how this should be done. To ensure that data is safe to be reused, it is also crucial to be able to fall back on technical expertise, practical experience, routines and corresponding infrastructures for opening up and sharing (e.g., via research data centers), which, however, have not yet been developed for all data types and research processes. Qualitative data cannot simply be made available for secondary use by following the existing and established infrastructures for quantitative research data (DGS 2019; Knoblauch 2013; RatSWD 2015; von Unger 2018). Rather, they require specific (including methodological, data protection and research ethical) requirements for subsequent use, which we will discuss in more detail below. It should be emphasized that the opening up and sharing of qualitative research data must not be a unilateral decision by funders and political actors.

In recent years, studies about attitudes towards and the feasibility of opening up qualitative data have emerged increasingly, as have examples of secondary use of qualitative data (including Corti, Day & Backhouse 2000; Corti 2007; Helfen, Hense & Nicklich 2015; Huschka, Knoblauch, Jagodzinski, Schumann & Witzel 2015; Oellers & Solga 2013; Krügel & Ferrez 2013; Laudel & Bielick 2019; Medjedović 2011; Medjedović & Witzel 2010; Smioski 2013). It is clear from these studies that, in addition to clarifying the legal requirements, the particular challenges for opening up and sharing qualitative data are creating as comprehensive a documentation as possible and contextualizing the data to enable reuse (Corti 2000; Hollstein & Strübing 2018).

This primer is intended to help with the question of how qualitative data can be made openly available

and shared. It was developed by researchers from various disciplines in cooperation with employees of research data centers. The focus is on answering fundamental and very practical questions, which is why this primer has been structured as a catalog of questions. This was also done to keep the manual concise and clear. In addition, the primer includes references, links and an annotated list of literature at the end of the document as additional resources addressing the topics raised here.

3 Opening up and sharing data

3.1 What is qualitative data?

In principle, it can be debated whether one can and should speak of "qualitative" and "quantitative" data at all. A curve diagram on a sheet of paper can, for example, represent a quantitative data set as well as representing a qualitatively understood symbol. Whether research data are viewed as qualitative or quantitative in the context of a specific research design does not depend so much on their physical appearance, but on their specific use in the research process (Leonelli 2015). Nevertheless, there are types of data that are commonly associated with qualitative or quantitative research (see, e.g., Baur & Blasius 2019; Flick 2018; Flick, Kardoff & Steinke 2015).

In this guide, we refer to qualitative data as data that is produced and used in the context of qualitative research processes. Such research data are typically characterized by a high level of situational context information. They are often less structured, standardized and metrized than is the case with data from quantitative research (Kitchin 2014). Qualitative data are generated, for example, in the context of interviews and participant observations and are manifest, among other things, in the form of audio recordings, transcripts, field notes, video recordings or photographs.

Furthermore, we distinguish between raw data (e.g., the audio file of an interview or the handwritten recordings of participant observation) and processed data (e.g., anonymized transcripts, notes, images). In addition, context data is generated in the research process, e.g., socio-demographic questionnaires, postscripts, interview guidelines, and category systems. Data management plans can also be referred to as context data. These context data are of great importance for an understanding of the collected research data and their re-use, but can also be of interest for opening up and sharing in themselves, independent of the collected data, which is why they are also included in the following explanations.

3.2 What is actually meant by opening up and sharing?

By opening up and sharing qualitative research data, we mean making them accessible for secondary use. However, this does not mean simply posting as much data as possible on the internet, but rather making it available in a controlled and documented manner to the respective research community, taking into account specific methodological and content-related criteria. Accordingly, research data centers (RDCs) and repositories are used to archive and make available reusable research data, usually with different access methods (download, remote desktop, on-site) and access levels (e.g., data access only for scientific purposes), which go hand in hand with different anonymization requirements and correspondingly varying potentials for re-use and analysis. For many primary researchers as well as participants (or field participants, informants, etc.), controlled access to the data is a basic requirement in order to even consider opening up the research data.

3.3 What arguments speak in favor of opening up and sharing my data?

\ Personal benefit: Publicly shared data are seen as a type of publication that can be cited. Research data centers, for example, work with the allocation of Digital Object Identifiers (DOI) in order to guarantee that the data can be permanently referenced. In addition, cooperation and collaboration projects can emerge when data is used by other researchers. Opening up and sharing, accordingly, can facilitate the collegial exchange and learning process and thus also increase the quality of one's own research.

\ Practical research benefit: Secondary use of research data has many advantages for the respective research communities, even though this argument is still largely ignored in many fields. In particular, so far only rare advantage is taken of the potential gains in knowledge from comparative research on different data sets, the possibility of longitudinal analyses with secondary data or the possibility of combining data sets for a secondary research project with the possible addition of new data, but all these have great potential. Using data that has already been collected can also prevent over-researching a field (a known problem, e.g., from school research). Particularly in the case of vulnerable groups, attempts should be made to protect the field as much as possible.

\ Scientific quality and research quality: Sharing data makes the research process transparent. This can increase the quality of research and stimulate method development. Furthermore, most data collection is publicly funded, which is why the data should also be made available to the (scientific) general public again (see also the Public Money, Public Code campaign).

\ Demand from funders: Research funders increasingly expect the data collected in the context of research projects funded by these agencies to be archived and made available for secondary use. In EU-funded projects such as the Horizon 2020 program of the European Commission, archiving has even become a mandatory criterion (the possibility of subsequent use can, however, be excluded under certain circumstances). Researchers who cannot archive their data and make them reusable must increasingly justify why this is not possible.

3.4 What arguments speak against opening up and sharing my data?

\ Sensitivity of the data: Qualitative data can be highly sensitive. If, for example, it cannot be ensured that the data is fully anonymized, researchers must consider whether it is possible to open up and share the processed data, especially when vulnerable groups (e.g., refugees, migrants, ill or criminalized participants, children and adolescents, etc.), are concerned. In addition, field access can be denied for sensitive topics if researchers announce that they want to share the data.

\ Intervention into the research process: If opening up and sharing data would lead to an intervention into the research process, then the advantages and disadvantages must be weighed against each other. Usually, opening up and sharing data does not constitute an intervention into the research process. An intervention into the research process could take place, for example, if field access is not possible or if interview partners announce that they will not answer certain questions if the answers can be opened up and shared by the researchers. An intervention could also arise when researchers feel inhibited and sense that their freedom of research is being obstructed by

the "controlling" influence of subsequent data publication, and consequently proceed differently with their research, for example by refraining from asking certain questions.

\ Time and cost: Preparing data so that it can be opened up and shared can be time-consuming and costly. For third-party funded projects, there is the possibility to apply for additional funds for the preparation of the data for reuse. It makes sense to contact and involve a suitable RDC when submitting the application (See: When should RDCs ideally be contacted?) In the case of projects for which no additional funding can be applied for, e.g. PhD projects, investing the time to make the data usable still makes sense. On the one hand, one can demonstrate one's research process transparently and make a contribution that is beneficial to the research community. On the other hand, the data then count as an independent publication.

4 Data management plan

4.1 What is a data management plan?

A data management plan (DMP) contains information about the collection, processing, storage, archiving, publication and re-use possibilities of research data in the context of a research project. When creating a DMP, the aim is to determine these activities in as target-oriented, systematic and efficient a manner as possible. The benefit of such formalized planning is to avoid restrictions in the later use of data through early and comprehensive planning.

A DMP can span anything from a few paragraphs to several pages. Many third-party funders (BMBF, DFG, HBS, EU Horizon 2020) require a DMP as part of a funding application for the allocation of funds from certain funding lines.

Especially with regard to qualitative data, DMPs are sometimes controversial. It is not uncommon for the obligation to create and submit a DMP to be seen as too tight a corset, which does not do justice to the iterative and corrective qualitative research process. However, DMPs do not have to explain every step of the data collection in detail and there is also no need to view them as a static work product. Instead, DMPs can and should be adapted in the course of the research process.

4.2 What role does a data management plan play in opening up data?

DMPs are a useful tool for any type of empirical research project. For qualitative projects, and especially for opening up qualitative data, DMPs offer several advantages:

\ Creating a DMP helps researchers consider in advance how the data will be handled during the project.

\ A DMP can and should be adapted over the course of the project. This openness and flexibility correspond to the iterative knowledge and data collection process in qualitative research projects.

\ A DMP facilitates work with a repository or RDC, through which qualitative data can be shared. It is therefore advisable to involve an RDC when submitting the application.

\ The DMP makes it easier for primary researchers to write a data and methods report or study report, which most RDCs make available to secondary users in order to contextualize the data (Contextualization and Data Preparation).

4.3 Where can I find help creating a data management plan?

General information:

- Research Data Centers
- Forschungsdaten.info
- Research data management at the HU Berlin

Tools for creating a data management plan:

- DMPonline
- DMPtool
- Research Data Management Organiser
- Exemplary plan from the German Institute for Economic Research (DIW Berlin)
- Checklist for creating a DMP in empirical educational research

5 Data generation

Data generation is used here to refer to both the collection of primary data (e.g. through interviews, video recordings, participant observation) and to the compilation of data (e.g. creating a corpus from newspaper articles).

5.1 Where can I find qualitative research data for re-use?

In addition to contacting researchers directly, there are a number of other ways to search for available data.

- Accredited research data centers (RatSWD) that specialize in qualitative research data
- Repositories of your own institution
- General repositories, e.g., Zenodo, OSF, SocArxive
- Meta-portals in which repositories can be found: re3data.org
- Meta-portals in which data can be found: Google Dataset Search, Open Knowledge Maps, Science Open, OpenAire
- Subject-specific meta-portals in which data can be found: Verbund Forschungsdaten Bildung
- DOI providers: Datacite, Crossref

5.2 Who is the author of primary, contextual data or collections?

Whether research data are copyrighted works is difficult to judge and must be considered on a case-by-case basis. According to German copyright law, copyright protection arises when a work is created. As a rule, mental effort that manifests itself in a concrete work and shows certain individual characteristics is sufficient to meet this definition. Pure information and facts are not protected by copyright, but can carry ancillary copyrights. In the best-case scenario, questions of copyright and ancillary copyright should be clarified at the beginning of the research project (as well as establishing who the copyright co-holders are). Furthermore, contractual aspects with the employing institution can also become relevant at this point if, for example, they hold the rights of use to the generated data via the employment contract. Finding out which clauses or contractual agreements with one's employer refer to data is therefore important. The answers to these questions largely determine who is entitled or potentially obliged to archive the data collected or make it available for reuse.

5.3 Can the idea of opening up and sharing data distort my data?

Strictly speaking, surveys such as interviews or even participatory observations are not natural situations and are therefore always "artificial", insofar as they are not non-invasive and more or less completely unnoticed observations of natural situations (such as unobtrusively observing the behavior of people in a shopping street). Announcing to participants that the data to be collected will later be opened up and shared can add to the artificiality of the situation and trigger a specific reaction by participants. The researcher must therefore decide whether to obtain consent from the interviewed / observed persons to reuse the data before data collection, or whether this is only done after the survey (so-called "debriefing"). Obtaining consent after data collection (and, if necessary, transcription or processing of the data) has the additional advantage that participants can then fully appraise which data they consent to sharing. There may also be research projects in which opening up and sharing must be generally ruled out, e.g., due to data protection law or research ethics.

5.4 What do I have to consider if I want to open up and share my data?

If the decision has been made to make the collected data available for re-use, it is helpful to decide where and how the data will be shared early on in the research process. In general, it is recommended that data preparation for archiving and sharing be carried out during the research process, so that complex documentation and reconstruction work does not have to be carried out shortly before the end of the research project. It helps to consult the data management officers at one's institution or at an RDC, who can provide helpful information on research data management that facilitates data sharing and archiving. Central points that must be considered to enable data re-use are: Compliance with legal aspects (especially data protection and copyright), consultation with a research data center / repository, and documentation of the collection and processing of the data to ensure that the data is interpretable.

In addition to documentation, data protection (anonymization) and access to the data (curation) are particularly relevant for sharing qualitative primary data and/or context data (such as interview guidelines, transcription rules or video manuals for observation situations). it is therefore essential to clarify in advance whether the degree of anonymization required for publication would still enable a meaningful reanalysis, and whether the data can actually be contextualized sufficiently, as well as which access route and access level would be most suitable for the data.

5.5 What should I pay attention to, in terms of data protection?

Data protection applies to personal data of natural persons. The European General Data Protection Regulation (GDPR) applies in Germany. In addition to the GDPR, other legal bases must be observed. The Federal Data Protection Act (BDSG) is relevant for private institutions as well as for federal public institutions and, to a limited extent, for public institutions in the federal states. State data protection laws (LDSG) are relevant for public institutions in the federal states, such as universities. In addition, there are data protection regulations in special laws such as the school laws of the respective federal states, the Federal Statistics Act or the Social Code, which must be observed if applicable. The first thing to do always, however, is to check the European GDPR, as it takes precedence over other legal sources. The data protection law of the federal government or the federal states is only applicable if the GDPR contains escape clauses or loopholes. At the beginning of a research project, therefore, it should be clarified which data protection requirements must be observed during the project. Most universities also have data protection officers and ethics committees who can be consulted on questions relating to the handling of personal data.

5.6 What should I consider regarding obtaining consent?

A declaration of consent means that the interviewed or observed person gives informed consent to the collection and use of their data. Informed means that the research goal, the research procedure, the rights of the participant and, if applicable, other uses of the collected data have been explained and that the participant has understood this information. Consent to data collection and consent to opening up and sharing data do not have to be given in one step. For example, some research data centers recommend obtaining consent about data sharing after data collection, since participants can then better assess what information they have revealed during data collection and which information they want to release for reuse.

- Obtaining informed consent to open up and share the collected data is necessary according to the GDPR and required from a perspective of research ethics. Consent can also be given orally. Obtaining written consent is recommended, however, due to the obligation to provide evidence.
- Sufficient time should be allowed before data collection to inform the participants. It is not enough to briefly present the information on data protection and the consent sheet. The participants must have understood the actual situation.
- According to the GDPR (see Art. 8 Para. 2 GDPR), participants under the age of 16 require parental consent in addition to or instead of the consent of the child. National escape clauses allow a lower age limit to be set, but no lower than 13 years. To our knowledge, the general national laws in Germany (BDSG, LDSG) do not specify age limits lower than the GDPR. However, more explicit requirements can sometimes be found in special laws such as the school laws. When research is carried out with people under guardianship, the consent of the guardian must be obtained.
- If the (anonymized) primary data are to be made available for subsequent use, this must be listed in the consent form.
- Usually, consent for collecting primary data must be obtained before data collection. Consent for sharing (anonymized) primary data can sometimes be obtained after data collection. This depends on the research context, the sensitivity of the data, and the trust placed in researchers.
- The data collection and the associated documents used in the field (such as the informed consent form) are subject to approval in certain fields of investigation (e.g., school). These procedures can be very time-consuming (especially in cross-border projects) and should be planned accordingly. Often, the informed consent must also be presented to the institutional data protection officer as part of ethical and data protection review processes.

6 Contextualization and data preparation

6.1 Why should I contextualize my data?

In order to be able to open up and share qualitative data, the data must be enriched with the necessary contextual information. This process is called contextualization. Contextualization helps secondary researchers to understand and use the data in the best possible way, so to speak “to slip into the shoes of the primary researchers”, even though they lack direct experience of the primary data collection.

6.2 How can I contextualize my data?

To facilitate re-use, it is helpful for the secondary researchers to receive the contextual information in a bundle, which is why research data centers usually require a study report, data and methods report, and contextualization reports in addition to the primary data, which they then have ready for subsequent users. The documentation of the data collection context can contain, for example, the following information:

- Project structure (e.g., research question, research design)
- Project details (e.g., research funders, members of the research team and
- professional background and status)
- The survey method and the survey instrument (e.g., interview guide or experimental setup)
- Details on how the survey was carried out (e.g., how were participants recruited, who carried out the data collection, location of the data collection, circumstances of the data collection, such as the type of data collection or type of protocol, disturbances during the data collection, length of the session).
- Details on participants (e.g., status, function, socio-demographic data, inclusion of respondents in the research process through sharing the results with them)
- Data for connecting data points, e.g., chronological order in the case of several sessions with the same person
- Transcription rules and anonymization procedure (see also the following section)

Some RDCs (e.g., RDC Education at DIPF or Qualiservice) provide researchers with recommendations for contextualizing qualitative survey data.

6.3 How should I prepare my data for reuse?

In addition to the contextualization of research data through documentation, data preparation is central for its sharing and secondary use. Data preparation refers to the steps that are necessary to share research data in conformity with research ethics and data protection law, and in a way that is understandable and usable. When it comes to interview data, this concerns mainly transcription and anonymization. Anonymization is necessary in almost all research contexts, not only to protect the people interviewed or involved, but also to protect third parties about whom, for example, someone has spoken. In the case of some data, however, anonymization is difficult to achieve without destroying the analysis potential of this data for secondary analyses or for teaching purposes (e.g., in the case of video recordings). In this case, RDCs offer access channels with different restriction levels to make such data available in a controlled and legally conform manner. This possibility should be discussed with the respective repository / RDC at an early stage. Then, a database can be made available with different access levels (e.g., regarding anonymized transcripts as well as underlying audio recordings).

To anonymize raw data (e.g., from interviews, video recordings, observation protocols, images), the data are put into writing according to certain standards and rules (transcription). Documenting these transcription processes improves the reusability of the data, so the following information is helpful:

- Which standards and rules were used for the transcription (e.g., which transcription rules have been applied – see also bibliography)
- Who performed the transcription? (e.g., researchers, student assistants, professional transcription service)
- According to which rules or heuristics were parts of the raw data excluded from transcription? (e.g., small talk before the start of the official interview)

- What rules were used for anonymization? This does not mean making the anonymization protocol available, which would enable de-anonymization. Rather, the aim is to show which identifiers have been anonymized in what way, i.e., the anonymization procedure should be described.

This information can be described in the data and methods report/ study report/ contextualization report.

6.4 Can I publish contextual data that is generated during data collection and analysis?

On the one hand, contextual data is generated during data collection, such as when interview guidelines, observation protocols or experimental setups are designed. On the other hand, contextual data is generated when analyzing qualitative data such as memos, codes, code structures or category systems using software such as MAXQDA or Atlas.ti. Such data can also be opened up and shared. Some research communities are currently discussing whether disclosing "code trees" or "category systems" should be required for theses or during the review processes for publication in scientific journals.

However, closed technical standards of the existing software solutions can be problematic. For example, the evaluation programs MAXQDA or Atlas.ti are not open source, which is why coding schemes that are saved and made available in such programs cannot be reused by those who do not have access to a license. When publishing memos, care must also be taken to ensure that anonymization is maintained (e.g., not referring to the participant as "he" or "she" if the data ought to be anonymized in a gender-neutral manner).

7 Research data centers and repositories

7.1 Where can I archive my data?

Researchers can choose between different options for archiving their data and making it reusable (e.g., repositories of their own institution, free repositories such as Zenodo, or RDCs). When selecting an option that is suitable for the researchers and the data, there are a few things to consider: How and where can long-term archiving and easy retrieval of the data be guaranteed? Is the data shared in a data protection compliant manner, can access to sensitive data be controlled, and can participants revoke the consent they have originally given? Is field or data type-specific support guaranteed? Are my data protected from commercial use? In this primer, we focus primarily on the functions and offers of RDCs in German-speaking countries, which specialize in qualitative research data.

7.2 What do research data centers (RDCs) do?

RDCs are facilities at universities or other scientific institutions that act as service providers to improve science's access to research data. RDCs advise researchers on questions of data preparation (e.g., documentation and anonymization), but they do not usually conduct data preparation themselves. They back up research data and ensure their permanent preservation and reusability (long-term archiving). Long-term accessibility is ensured by regularly migrating the data to current data formats, archiving the data with backup copies in a professional IT infrastructure, and assigning digital object identifiers (DOIs) so that the data is permanently referenceable. In addition, RDCs ensure transparent and standardized regulation of access to the data. To do this, on the one hand, when submitting the data, they check the sensitivity of the data

and the degree of anonymization carried out by the primary researchers. Then, in consultation with the primary researchers, the appropriate access routes are selected, matching the sensitivity of the data . The sensitivity of the data is measured by how high the chance is that the participants could be identified and how great the potential damages would be if the data were to become de-anonymized. On the other hand, RDCs usually conclude data usage contracts with secondary users, in which they obligate themselves, among other things, not to attempt any de-anonymization of the data. One advantage of using RDCs when opening up and sharing primary research data is that they can provide clarity and certainty about legal requirements in the process.

RDCs establish controlled access to the data in different ways. In the case of less sensitive data, researchers can download them after submitting an application. In the case of sensitive data, sometimes only on-site access is possible and researchers can only access the data on the premises of the RDC. In addition, additional security measures are often taken, e.g., there is no USB access to the on-site computers. Cell phones or laptops are often not allowed into the room.

7.3 How do I find the right RDC for my qualitative data?

In Germany, the Council for Social and Economic Data is a central body for the accreditation of research data centers. A total of seven RDCs are currently accredited and have specialized in different qualitative data types:

- Research Data Center for Business and Organizational Data (RDC-BO)
- Research Data Centre for Education (RDC Bildung) at DIPF
- Forschungsdatenzentrum Archiv für Gesprochenes Deutsch am Institut für Deutsche Sprache (RDC-AGD)
- Research Data Centre for Higher Education Research and Science Studies (RDC-DZHW)
- Interdisziplinäres Zentrum für qualitative arbeitssoziologische Forschungsdaten (RDC eLabour)
- RDC Qualiservice
- Research Data Center of the Socio-Economic Panel

7.4 When should RDCs ideally be contacted?

Ideally, RDCs should be contacted while the research idea is being developed, to discuss data management and, if necessary, a DMP, and to apply for appropriate resources in the project application. During the preparation phase of the data collection, RDCs can be contacted to check the consent forms with regard to data archiving and secondary data use. RDCs do not intervene in the research process, but can advise researchers on the steps for publishing data. Seeking this advice early can help avoid problems with data archiving and secondary data use (e.g., lack of resources, consent forms making secondary use difficult or impossible, uncertainty regarding the required documentation).

8 Conclusion

Heterogeneous data collections of various kinds are possible these days, using digital photo or film cameras, digital sound recording devices and / or through digital research on the computer. Older data sets, e.g., historical ethnological material collections or film recordings, can be photographed or transferred to new, digital formats, old texts can be scanned and then searched for using digital tools. Digital and digitized data and materials can thus be made reusable to a large extent.

Against this background, and in the context of mandatory long-term archiving, the (provision of opportunities for the) reuse of research data is also becoming increasingly relevant. This development can be seen to harbor promising potential for digital, modern research methods and data. This assessment is mirrored in the initiative for the development of a national research data infrastructure (NFDI) by the federal and state governments, which is currently being implemented by the Joint Science Conference (GWK) and the German Research Foundation (DFG). In addition, research data infrastructures and research data centers have been established in Germany over the past ten years, which, in addition to (providing opportunities for the) reuse of research data often also offer advice about research data management.

Technical innovations and the growing accessibility of advice about research data management improve the ways that data are archived and can be re-used. This is also the case for qualitative research data. At the same time, research data infrastructures have transformed the originally often snubbed act of long-term archiving into a promising endeavor for the research community: by preparing and publishing often laboriously collected data corpora, both primary researchers (additional attention) and subsequent users (as new data collection can be (partially) avoided) as well as the entire research community (sustainability) can benefit. Against this background, we hope to have made a practical contribution with this primer, which helps qualitative researchers understand the prerequisites, options and the potential of opening up and sharing data generated in their research.

9 Literature

As already stated in the preface, we wrote this handout from and in the German context. Accordingly, we predominantly used German literature in the original and did not changed for the English translation.

9.1 Methodological discussion on opening and sharing qualitative data

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