Example Data Management Plan: DFG Checklist for Handling Research Data.

1. Data description

The planed research data within the [XYZ project] will be collected via an online questionnaire. The software [X.2] provided by the Computer and Media Service (CMS) of Humboldt-Universität zu Berlin is used for this purpose. The survey data is analyzed using the open source statistical software R and is saved in the form of the data set (csv), the R analysis script (r) and a series of graphics (tiff). Furthermore, a readme file (txt) as well as the questionnaire (pdf/a) and a codebook (pdf/a) are created to describe the data. In addition to the self-collected research data, publicly available data in the form of public statistics (csv), reports (docx, pdf) and legal regulations (html, pdf) will be reused and referenced for the project. The expected total size of all files is a maximum of 50 GB.

Commented [FA1]: How does your project generate new data? Is existing data reused? Which data types (in terms of data formats like image data, text data or measurement data) arise in your project and in what way are they further processed? To what extent do these arise or what is the anticipated data volume?

2. Documentation and data quality

Metadata is created via the web form of the [X institute] in accordance with the Domain-Specific Standards. Additional documentation of the research data in the form of a readme, questionnaire, codebook and R syntax is also planned. Keywords are assigned according to the subject-specific thesaurus. The data will be classified in the web form using the subject-specific classification of [domain/field]. Quality controls are embedded within our data collection, processing, and analysis workflows, with checks and validations at each stage to identify and rectify any errors or inconsistencies. This includes automated validation scripts and manual review processes. We use the [XYZ] software packages, analytical tools, and programming environments for data processing, visualization, and statistical analysis.

Commented [FA2]: What approaches are being taken to describe the data in a comprehensible manner (such as the use of available metadata, documentation standards or ontologies)? What measures are being adopted to ensure high data quality? Are quality controls in place and if so, how do they operate? Which digital methods and tools (e.g. software) are required to use the data?

3. Storage and technical archiving the project

Secure storage and backup will be ensured during the project period by the project management in co-operation with the responsible data processing officer of [Institute Y]. The university's cloud-based storage "HU-Box" is used for the storage and collaborative processing of data during the project. This enables clear access management and simple user administration. Access to sensitive data is restricted to authorized personnel only. Encrypted, password-protected folders are used for sensitive data, which can only be viewed and processed by authorized employees. An automated backup is performed every night.

Commented [FA3]: How is the data to be stored and archived throughout the project duration? What is in place to secure sensitive data throughout the project duration (access and usage rights)?

4. Legal obligations and conditions

[We anticipate [no] potential restrictions regarding subsequent publication or accessibility of our data.] As part of the online questionnaire, participants will be informed about subsequent publication while maintaining anonymity. The online survey is created in compliance with the GDPR with the advice of the institutional data protection officers. This includes informed consent from the respondents and separate consent for the subsequent publication of the data collected. An ethics vote is obtained beforehand from the responsible ethics committee at Humboldt-Universität. A cooperation agreement will be concluded with [project partner Z] to clarify the copyright of the data and a data management plan will be drawn up for the project.

Commented [FA4]: What are the legal specifics associated with the handling of research data in your project? Do you anticipate any implications or restrictions regarding subsequent publication or accessibility? What is in place to consider aspects of use and copyright law as well as ownership issues? Are there any significant research codes or professional standards to be taken into account?

5. Data exchange and long-term data accessibility

In addition to being analyzed directly by the project group, the dataset will also be relevant for other research projects. As no comparable data is available for secondary analysis, the research data, the R analysis scripts and the associated questionnaire will be made available to other researchers at the [X institute] under a CC-BY licence. The study receives a Digital Object Identifier (DOI) via the [X institute] data archive. As required for good scientific practice, the project results and all relevant research data will also be stored at the Humboldt-Universität zu Berlin for at least ten years. For this purpose, a procedure for transferring the data to the CMS backup service will be agreed with the institutional data processing officer. The [X institute] for the Social Sciences will curate the data after the end of the project.

Commented [FA5]: Which data sets are especially suitable for use in other contexts? Which criteria are used to select research data to make it available for subsequent use by others? Are you planning to archive your data in a suitable infrastructure? If so, how and where? Are there any retention periods? When is the research data available for use by third parties?

6. Responsibilities and resources

In accordance with the <u>research data policy at Humboldt-Universität zu Berlin</u>, the project manager is responsible for all aspects of research data management. However, individual sub-areas may be delegated to the project staff. For example, the preparation of research data for publication in the repository is planned for [project member #3]. The [X institute] will make the data available and archive it free of charge after consultation with the repository. The long-term storage of the data is free of charge by the CMS of the HU Berlin.

Commented [FA6]: Who is responsible for adequate handling of the research data (description of roles and responsibilities within the project)? Which resources (costs; time or other) are required to implement adequate handling of research data within the project? Who is responsible for curating the data once the project has ended?