# TEMPLATE FOR A DATA MANAGEMENT PLAN

The following **template** should be used to develop a Data Management Plan (DMP) to accompany a research proposal. The notes (*in italics*) provide further context and guidance for its completion. Where substantial data is generated from the research, the DMP will be more in depth and therefore likely to be 2 or 3 pages long [(3 pages maximum length - See MRC Je-S Help and Guidance for DMP)](https://je-s.rcuk.ac.uk/Handbook/pages/GuidanceonCompletingaStandardG/CaseforSupportandAttachments/MRCSpecificGuidance.htm#Data_Management_Plan__exactly_1__Mandatory_requirement___Maximum_of_1_DMP) for low impact studies generating small amounts of data, DMPs will be short ie less than half a page.

If you opt NOT to use the template the topics listed in the template MUST be addressed.

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| **0. Proposal name** | |
| Compare the ocular behaviour of novices and visualization experts | |
| **1. Description of the data** | |
| **1.1 Type of study**  Study the ocular behaviour between novices and experts for financial documents, specifically income statements from financial reports.  **1.2 Types of data**  *Types of research data to be managed in the following terms: quantitative, qualitative; generated from surveys, clinical measurements, interviews, medical records, electronic health records, administrative records, genotypic data, images, tissue samples,...*  The primary data that will be handled in this study is quantitative data, specifically collected during the participant's examination of a data visual using eye tracking technology.  Prior to the study, participants will complete a survey to record their expertise in data visualisation and financial data. Additionally, a post-study survey will be conducted to assess the usefulness of data visualization for understanding income statements.  **1.3 Format and scale of the data**  *File formats, software used, number of records, databases, sweeps, repetitions,… (in terms that are meaningful in your field of research). Do formats and software enable sharing and long-term validity of data?*  The eye gaze data collected during the experiment will consist of x and y coordinates for each eye, recorded as tuples. This means that for every position the participant looks at, there will be four data points in total: two tuples for each eye. The Tobii X2-30 eye tracker used in this study has a sampling rate of 30 Hz, meaning that 30 data points will be collected every second. As the experiment duration is limited to 1 minute, a maximum of 1800 data points will be generated for each run. | |
| **2. Data collection / generation** | |
| *Make sure you justify why new data collection or long term management is needed in your Case for Support. Focus in this template on the good practice and standards for ensuring new data are of high quality and processing is well documented.*  **2.1 Methodologies for data collection / generation**  *How the data will be collected/generated and which community data standards (if any) will be used at this stage*.  The data for this study will be collected via 2 means, survey collection from the participants and the eye tracking data. To control the Tobii eye tracker, a Python script running on Python version 3.8 will be used. The script will automatically terminate the eye tracking data collection once the designated time limit has been reached.  The data will be stored on a csv and the raw data will be moved to an R environment which will then be processed using R.  **2.2 Data quality and standards**  *How consistency and quality of data collection / generation will be controlled and documented, through processes of calibration, repeat samples or measurements, standardised data capture or recording, data entry validation, peer review of data or representation with controlled vocabularies.* | |
| **3. Data management, documentation and curation** | |
| *Keep this section concise and accessible to readers who are not data-management experts. Focus on principles, systems and major standards. Focus on the main kind(s) of study data. Give brief examples and avoid long lists.*  **3.1 Managing, storing and curating data.**  *Briefly describe how data will be stored, backed-up, managed and curated in the short to medium term. Specify any community agreed or other formal data standards used (with URL references). [Enter data* security *standards in Section 4].*  **3.2 Metadata standards and data documentation**  *What metadata is produced about the data generated from the research? For example descriptions of data that enable research data to be used by others outside of your own team. This may include documenting the methods used to generate the data, analytical and procedural information, capturing instrument metadata alongside data, documenting provenance of data and their coding, detailed descriptions for variables, records, etc.*  **3.3 Data preservation strategy and standards**  *Plans and place for long-term storage, preservation and planned retention period for the research data. Formal preservation standards, if any. Indicate which data may not be retained (if any).* | |
| **4. Data security and confidentiality of potentially disclosive information** | |
| *This section MUST be completed if your research data includes* ***personal data relating to human participants in research****. For other research, the safeguarding and security of data should also be considered. Information provided will be in line with you ethical review. Please note this section concerns protecting the data, not the patients.*  **4.1 Formal information/data security standards**  *Identify formal information standards with which your study is or will be compliant. An example is ISO 27001.If your organisation is ISO compliant, please state the registration number.*  **4.2 Main risks to data security**  *All personal data has an element of risk. , Summarise the main risks to the confidentiality and security of information related to* human participants*, the level of risk and how these risks will be managed. Cover the main processes or facilities for storage and processing of personal data, data access, with controls put in place and any auditing of user compliance with consent and security conditions. It is not sufficient to write not applicable under this heading.*  *MRC guidance on the* [*Confidentiality and data security*](https://www.mrc.ac.uk/publications/browse/mrc-policy-and-guidance-on-sharing-of-research-data-from-population-and-patient-studies/) *is provided (please see page 24 of the PDF file generated by selecting the above or adjacent* [*link*](https://www.mrc.ac.uk/publications/browse/mrc-policy-and-guidance-on-sharing-of-research-data-from-population-and-patient-studies/)*).* | |
| **5. Data sharing and access** | |
| Identify any data repository (-ies) that are, or will be, entrusted with storing, curating and/or sharing data from your study, where they exist for particular disciplinary domains or data types. [Information on repositories is available here.](http://www.wellcome.ac.uk/About-us/Policy/Spotlight-issues/Data-sharing/Guidance-for-researchers/WTX060360.htm)  **5.1 Suitability for sharing**  *Is the data you propose to collect (or existing data you propose to use) in the study suitable for sharing? If yes, briefly state why it is suitable.*  *If No, indicate why the data will not be suitable for sharing and then go to Section 6.*  **5.2 Discovery by potential users of the research data**  *Indicate how potential new users (outside of your organisation) can find out about your data and identify whether it could be suitable for their research purposes, e.g. through summary information (metadata) being readily available on the study website, in the MRC gateway for population and patient research data, or in other databases or catalogues. How widely accessible is this depository?*  *Indicate whether your policy or approach to data sharing is (or will be) published on your study website (or by other means).*  **5.3 Governance of access**  *Identify who makes or will make the decision on whether to supply research data to a potential new user.*  *For population health and patient-based research, indicate how* [*independent oversight of data access and sharing*](https://www.mrc.ac.uk/publications/browse/mrc-policy-and-guidance-on-sharing-of-research-data-from-population-and-patient-studies/) *(please see page 10 of PDF file generated by selecting the above or adjacent* [*link*](https://www.mrc.ac.uk/publications/browse/mrc-policy-and-guidance-on-sharing-of-research-data-from-population-and-patient-studies/)*) works (or will work) in compliance with MRC policy.*  *Indicate whether the research data will be deposited in and available from an identified community database, repository, archive or other infrastructure established to curate and share data.*  **5.4 The study team’s exclusive use of the data**  *MRC’s requirement is for timely data sharing, with the understanding that a limited, defined period of exclusive use of data for primary research is reasonable according to the nature and value of the data, and that this restriction on sharing should be based on simple, clear principles*. *What are the timescale/dependencies for when data will be accessible to others outside of your team? Summarize the principles of your current/intended policy.*  **5.5 Restrictions or delays to sharing, with planned actions to limit such restrictions**  *Restriction to data sharing may be due to participant confidentiality, consent agreements or IPR. Strategies to limit restrictions may include data being anonymised or aggregated; gaining participant consent for data sharing; gaining copyright permissions. For prospective studies, consent procedures should include provision for data sharing to maximise the value of the data for wider research use, while providing adequate safeguards for participants. As part of the consent process, proposed procedures for data sharing should be set out clearly and current and potential future risks associated with this explained to research participants.*  **5.6 Regulation of responsibilities of users**  *Indicate whether external users are (will be) bound by* [*data sharing agreements*](https://www.mrc.ac.uk/publications/browse/mrc-policy-and-guidance-on-sharing-of-research-data-from-population-and-patient-studies/)*, setting out their main responsibilities (please see page 13 section 7, titled* [*Data-sharing agreements*](https://www.mrc.ac.uk/publications/browse/mrc-policy-and-guidance-on-sharing-of-research-data-from-population-and-patient-studies/) *of the PDF file generated by selecting either of two links above).* | |
| **6. Responsibilities** | |
| *Apart from the PI, who is responsible at your organisation/within your consortia for:*   * *study-wide data management* * *metadata creation,* * *data security* * *quality assurance of data.* | |
| **7. Relevant institutional, departmental or study policies on data sharing and data security** | |
| *Please complete, where such policies are (i) relevant to your study, and (ii) are in the public domain, e.g. accessible through the internet.*  *Add any others that are relevant* | |
| **Policy** | **URL or Reference** |
| Data Management Policy & Procedures |  |
| Data Security Policy |  |
| Data Sharing Policy | *e.g. a* [*study policy of sharing research data*](https://www.mrc.ac.uk/publications/browse/mrc-policy-and-guidance-on-sharing-of-research-data-from-population-and-patient-studies/) |
| Institutional Information Policy |  |
| Other: |  |
| Other |  |
| **8. Author of this Data Management Plan (Name)** and, if different to that of the Principal Investigator, their **telephone & email contact details** | |
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