

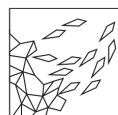
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# Draft for CASCB Data Management Plan

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## Introductory remarks

Data Management Plans (DMPs) are integral part of research practice. It raises questions any research project will have to face at some point in its life cycle. A DMP helps gain and keep an overview of these questions and requirements for keeping your data safe, usable and findable.

A DMP is a handbook for how you plan to generate, store, back-up, publish, archive and generally work with your data, even after the project ends. Therefore, is a living document that can be and will have to be revised and updated during the research project: not every detail can be known at the beginning of a project. So when details become clearer or plans change or additional questions have to be dealt with, the DMP should be updated with the new information or plans. Only then, it can be a useful guide throughout the project.

This template incorporates the ideas of FAIR research data management. Keeping your data FAIR means to make sure it is always:

- Findable (where do you store it, are naming standards in place, metadata standards, persistent identifiers when publishing, ...?)
- Accessible (who needs access to the data during the project, where, how and when will back ups be done, are metadata accessible, ...?)
- Interoperable (what hardware/software/other tools do I need, do my publications refer to my data as well, ...?)
- Reusable (long-term archiving, what and where, what data format, what licence, ...?)

If you have any questions regarding research data management or would like feedback for or assistance with your data management plan, please do not hesitate to contact

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Lena Dreher ([lana.dreher@uni-konstanz.de](mailto:lana.dreher@uni-konstanz.de)).

**Project name: The joint action in sports and social learning**  
**Project number: -**

**Data summary:**

(Data files created or used in the project)

Name:	Joint action in sports and social learning.
Origin:	We collect our own data in the lab.
Owner:	Fumihiko Kano and Prasetia Putra
Format:	c3d, tsv, csv, and mp4
Description:	The data are recorded from: - motion capture system (Vicon Nexus 2.14), - Tobii wearable glasses (Tobii Pro Lab 1.194.41215), - ECG sensors (custom Python program), and - RGB cameras (Logii stream cam 2.08.11)
Purpose for the project:	To understand mechanism during joint action.
Utility for others:	No
Contains personal data:	Yes
Contains sensitive personal data:	No
Access restrictions:	Yes (Fumihiko Kano and Prasetia Putra)
Repository/Archive:	University of Konstanz Cloud
Embargo period:	5-year
Licence:	CC BY 4.0 international

**Project Description:**

## Data description and collection

### Which data will be generated?

Types (numeric, text, images, video, ...):	Numeric, text, and video
Formats (file formats, proprietary formats should be convertible into open formats):	c3d, tsv, csv, and mp4
(Estimated) Volume (number of files, total file size):	3 GB (one session), in total 300 GB
Does the project re-use existing data? If not, have you considered this option?	No existing data

### Documentation:

Are you following a metadata standard? If not, which information will be attached to the data to describe them? (Consider what is necessary for others to find, understand and potentially re-use your data)	No. (The hashtag) - Affiliation: Centre for the Advanced Study of Collective Behaviour  - Funding number: Centre for the Advanced Study of Collective Behaviour, the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) under Germany's Excellence Strategy – EXC 2117 – 422037984  - ORCID: 0000-0002-7632-375X - Keywords: - Human behavior - Eye tracking - Motion tracking - Interpersonal coordination - Human's heart beat
How do you document the definition of variables and details of methodology?	The documentation about the variables and details methodology will be written in markdown format ( <a href="https://github.com/comparativelab/JointAction">https://github.com/comparativelab/JointAction</a> )
Which tools (e.g. software) are required to use the data?	C3d can be opened using Python ( <a href="https://github.com/pyomeca/ezc3d">https://github.com/pyomeca/ezc3d</a> ).  Tsv and csv can be opened using any text editor.  MP4 can be opened using any video player.

Are quality controls in place and if so, how do they operate?	Checksum in the document - The data and the file name are the same - Standardize the data
How do you organise the files, what is the naming convention?	- Project folder - Session - Trial_name (DATE_TIME_SESSION_ID_SUBJECT_NO)
Who needs access to the data during the project (names and affiliations)?	Fumihiko Kano (CASCB)  Prasetia Putra (CASCB)
Where/how can these people access the data?	Both Fumihiko Kano and Prasetia Putra can access the data from encrypted hard disk that will be stored in a locked cabinet in XXX.

### Storage and Backup:

Where will data be stored during the project?	Data will be saved in an external transportable hard disk.
Outline of the lifespan of the data (from data collection, after 3 months, after 6 months, after project end, long term)	- 3 months: cleaning and pre-processing - 6 months: analyzing - after project end: back up in NAS and cloud - long term: back up in NAS and cloud
Where will your data be backed up to? (We recommend 3 different copies stored in at least two separate locations and one version in the cloud)	NAS (Synology DSM $\geq$ 7) The University of Konstanz Cloud
What data will be backed up?	- Anonymized data and video - Documentation of dataset - Code - VeraCrypt container containing non-anonymised data
How frequently will that data be backed up? (time schedule)	Every week
Who is responsible for doing the back ups?	Prasetia Putra
How will data be protected from unauthorised access?	Data will be stored in VeraCrypt (Ver $\geq$ 1.25.9) container.

### Legal and ethical requirements:

If personal data is collected, what kind? (Please do not forget to fill in the university's VVT form prior to the collection of personal data. The research data managers can assist you with that.)	Gender Age Experience of playing table tennis
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If you re-use data: do you hold all the rights required for re-using and sharing? (e.g. intellectual property rights?)	-
Are there any legal restrictions to subsequent publication or re-use of your data? (Patents pending, non-disclosure agreements, ...)	-
Are there any ethical reasons restricting publication or re-use of your data?	-
Are there any other legal contracts with projects staff or third parties?	-

**Data sharing and long-term preservation:**

Which datasets will be published and made available?	Anonymized data consisting of: <ul style="list-style-type: none"> <li>- RGB videos</li> <li>- Motion capture</li> <li>- Gaze movement</li> <li>- ECG</li> <li>- Survey results including personal data</li> </ul>
Datasets that will be needed to validate results of any text publications of the project:	<ul style="list-style-type: none"> <li>- Motion capture</li> <li>- Gaze movement</li> <li>- ECG</li> <li>- Survey results including personal data</li> </ul>
Additional datasets that might be useful for other researchers	<ul style="list-style-type: none"> <li>- Motion capture</li> <li>- Gaze movement</li> <li>- ECG</li> <li>- Survey results including personal data</li> </ul>
Where will these datasets be published? (Which repository or similar?)	<a href="https://zenodo.org/">https://zenodo.org/</a>
Under which licence will the data be published?	CC BY 4.0 international
If there are any datasets that cannot be made freely available, can they be made available with an embargo?	-
If there are any datasets that cannot be made freely available and not with embargo, where will the metadata be published?	-
For datasets not shared: How is long-term preservation assured and for how long?	5 years

**Responsibilities and resources:**

Who is responsible for data management overall?	Prasetia Putra
Who is responsible for keeping the DMP up to date?	Prasetia Putra
Who is responsible for keeping track of legal requirements?	Prasetia Putra
Who is responsible for the data after the end of the project?	Prasetia Putra
Which resources will you need for your RDM? (e.g. hardware, software, technical expertise, ...)	NAS (1x: DS1621+) External Hard Disk (2x)
Which costs will you have for RDM activities and how will they be covered?	Buying NAS storage system & hard disk and external hard disk.  The cost will be covered by Project L21-07.