Plan Overview

A Data Management Plan created using DMPonline

Title: A Systematic Review and Meta-Analysis of the Relationships Between Different Pro-Environmental Behaviours

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Template: Postgraduate Research DMP (The University of Sheffield)

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Project abstract:

The **aim** of the current study is to systematically review the literature for quantitative evidence that explores the relationship between different pro-environmental behaviours. This will be achieved by evaluating the magnitude and direction of the relationships between behaviours, through a random effects meta-analysis. We will be examining correlations both within specific domains (e.g., within transportation behaviours) and between broader categories (e.g., between resource management and transportation behaviour).

Seven **behavioural domains** will be used for identifying and conceptualising the different types of pro-environmental behaviour. These are:

1. Transportation behaviour (e.g., use of electric vehicles)
2. Eating behaviour (e.g., reducing meat consumption)
3. Energy conservation (e.g., installing solar panels)
4. Water conservation (e.g., saving water in the household)
5. Resource management (e.g., reuse, reduce, recycle)
6. Family planning (e.g., having one less child)
7. Civic actions (e.g., activism)

The **review questions** are:

- What are the directions and strengths of the relationships between distinct domains of pro-environmental behaviours?
- What are the directions and strengths of the relationships between behaviours within each of the identified pro-environmental behaviour domains?
- Do the relationships vary according to demographic (e.g., age, type of sample), theoretical (e.g., intended goal of the behaviour, such as financial, health or

environmental reasons), and methodological moderators (e.g., study design)?

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A Systematic Review and Meta-Analysis of the Relationships Between Different Pro-Environmental Behaviours

Defining your data

- What digital data (and physical data if applicable) will you collect or create during the project?
- How will the data be collected or created, and over what time period?
- What formats will your digital data be in? (E.g. .doc, .txt, .jpeg)
- Approximately how much digital data (in GB, MB, etc) will be generated during the project?
- Are you using pre-existing datasets? Give details if possible, including conditions of use.

Digital data collected

The digital data collected in this systematic review will primarily consist of information extracted from eligible studies, including information about the study (i.e., authors, year of publication), sample characteristics (i.e., gender, age, type of sample, country), study design, measures of pro-environmental behaviour used, information about the reliability and validity of the measures, and effect sizes or the statistical details necessary for effect size calculation such as sample size, mean values, and standard deviations. If the correlations between pro-environmental behaviours are not reported, and it is not possible to calculate them with the information provided, the authors of the studies will be contacted and asked for these details.

How the data will be collected

The searches for studies to include in the review were conducted through three methods: (i) electronic database searches, (ii) backward and forward searches, and (iii) correspondence with authors whose work is included in the review. Three databases were included: Scopus, PsycInfo, and GreenFILE.

After full-text screening is completed, the primary researcher will read the eligible papers and the data will be extracted into a spreadsheet. The anticipated start date for data extraction is 01.04.2024 and the anticipated completion date for the systematic review is 15.11.2024.

Format and volume of data

An Excel spreadsheet will be used and the data will be stored in comma separated values (.csv) format and analysed using R. A .doc file will be used for creating a coding framework. The expected volume of the data depends on the number of eligible studies but this is expected to be in the range of a few GB.

Pre-existing datasets

As this is a systematic review, all the data will be collected from existing studies.

Looking after data during your research

- Where will you store digital data during the project to ensure it is secure and backed up regularly? (E.g. University research storage, or University Google drive)
- How will you name and organise your data files? (An example filename can help to illustrate this)
- If you collect or create physical data, where will you store these securely?
- How will you make data easier to understand and use? (E.g. include file structure and methodology in a README file)

- Will you use extra security precautions for any of your digital or physical data? (E.g. for sensitive and/or personal data)

Storage

The data collected will be stored in electronic files and shared with the supervisory team on University Google drive.

File collection and organisation

Files will be named appropriately, according to what data they are storing. The full data that will be extracted from the studies will be stored in a file called “Data extraction”. The statistical information will be then copied into a separate file called “Meta-analysis data”, which will be later to conduct a meta-analysis. The coding framework will be included in a document called “Coding framework”.

File structure

The data will be extracted into an Excel spreadsheet, and the data items extracted in each column will be explained in a coding framework document. The coding framework will contain a definition for each data item, and how this is going to be coded (e.g., numerical entry or text entry).

Precautions

No sensitive or personal data is collected, as we are only using secondary data.

Storing data after your research

- Which parts of your data will be stored on a long-term basis after the end of the project?
- Where will the data be stored after the project? (E.g. University of Sheffield repositoryORDA, or a subject-specific repository)
- How long will the data be stored for? (E.g. standard TUoS retention period of minimum 10 years after the project)
- Who will place the data in a repository or other long-term storage? (E.g. you, or your supervisor)
- If you plan to use long-term data storage other than a repository, who will be responsible for the data?

All the data extracted from the studies will be stored on the Open Science Framework (OSF) indefinitely. The main researcher (Anda-Bianca Ciocirlan) will upload the data in a project folder, where her supervisors have been added as collaborators.

Sharing data after your research

- How will you make data available outside of the research group after the project? (E.g. openly available through a repository, or on request through your department)
- Will you make all of your data available, or are there reasons you can’t do this? (E.g. personal data, commercial or legal restrictions, very large datasets)
- If there are reasons you can’t share all of your data, how might you make as much of it available as possible? (E.g. anonymisation, participant consent, sharing analysed data only)
- How will you make your data as widely accessible as possible? (E.g. include a data availability

statement in publications, ensure published data has a DOI)
- What licence will you apply to your data to say how it can be reused and shared? (E.g. one of the Creative Commons licences)

The data will be openly available on the Open Science Framework and a statement of data availability will be included in publications.

Putting your plan into practice

- Who is responsible for making sure your data management plan is followed? (E.g. you with the support of your supervisor)
- How often will your data management plan be reviewed and updated? (E.g. yearly and if the project changes)
- Are there any actions you need to take in order to put your data management plan into practice? (E.g. requesting University research storage via your supervisor.)

Responsibility for DMP

The primary researcher (Anda-Bianca Ciocirlan) will be responsible for the data management plan, including developing the DMP, implementing the present DMP, and extracting the data from existing studies.

DMP reviews and updates

The data management plan will be updated if any changes occur.

DMP implementation

The supervisory team will review the DMP and provide advice for its implementation.