

## FWO DMP Template - Flemish Standard Data Management Plan

Project supervisors (from application round 2018 onwards) and fellows (from application round 2020 onwards) will, upon being awarded their project or fellowship, be invited to develop their answers to the data management related questions into a DMP. The FWO expects a **completed DMP no later than 6 months after the official start date** of the project or fellowship. The DMP should not be submitted to FWO but to the research co-ordination office of the host institute; FWO may request the DMP in a random check.

At the end of the project, the **final version of the DMP** has to be added to the final report of the project; this should be submitted to FWO by the supervisor-spokesperson through FWO's e-portal. This DMP may of course have been updated since its first version. The DMP is an element in the final evaluation of the project by the relevant expert panel. Both the DMP submitted within the first 6 months after the start date and the final DMP may use this template.

The DMP template used by the Research Foundation Flanders (FWO) corresponds with the Flemish Standard Data Management Plan. This Flemish Standard DMP was developed by the Flemish Research Data Network (FRDN) Task Force DMP which comprises representatives of all Flemish funders and research institutions. This is a standardized DMP template based on the previous FWO template that contains the core requirements for data management planning. To increase understanding and facilitate completion of the DMP, a standardized **glossary** of definitions and abbreviations is available via the following [link](#).

## 1. General Project Information

Name Grant Holder & ORCID	Bert De Smedt (orcid.org/0000-0002-3313-3278 ) – Supervisor (KU Leuven)
Contributor name(s) (+ ORCID) & roles	Lorraine Graham (orcid.org/0000-0002-6810-9569) – Supervisor (University of Melbourne) Robert Reeve (orcid.org/0000-0002-8429-053X) – Co-supervisor (University of Melbourne) Siobhan Merlo (orcid.org/0000-0003-0357-9217) – Co-supervisor (University of Melbourne) Sara Peeters (orcid.org/0000-0002-6824-2044) – PhD researcher (KU Leuven & University of Melbourne) Nathalie Parry-Hale (orcid.org/0000-0003-1807-4342) – PhD researcher (KU Leuven & University of Melbourne)
Project number <sup>1</sup> & title	Understanding heterogeneity in preschoolers at risk for struggling with mathematics learning: profile analyses and dynamic assessments (3H220059) Project 1 - KU Leuven, PhD researcher Sara Peeters Understanding heterogeneity in preschoolers at risk for mathematical learning difficulties via latent profile analysis (3H220499)  Project 2 - University of Melbourne, PhD researcher Nathalie Parry-Hale Assessing and understanding pre-schooler's mathematical learning potential (3H220612)
Funder(s) GrantID <sup>2</sup>	GPUM/22/006

<sup>1</sup> "Project number" refers to the institutional project number. This question is optional since not every institution has an internal project number different from the GrantID. Applicants can only provide one project number.

<sup>2</sup> Funder(s) GrantID refers to the number of the DMP at the funder(s), here one can specify multiple GrantIDs if multiple funding sources were used.

Affiliation(s)	<p> <input checked="" type="checkbox"/> KU Leuven  <input type="checkbox"/> Universiteit Antwerpen  <input type="checkbox"/> Universiteit Gent  <input type="checkbox"/> Universiteit Hasselt  <input type="checkbox"/> Vrije Universiteit Brussel  <input checked="" type="checkbox"/> Other: University of Melbourne         </p> <p>Provide ROR<sup>3</sup> identifier when possible:</p> <p>- KU Leuven: <a href="https://ror.org/05f950310">ror.org/05f950310</a></p> <p>- University of Melbourne: <a href="https://ror.org/01ej9dk98">ror.org/01ej9dk98</a></p>
Please provide a short project description	<p><b>Project 1 - KU Leuven:</b></p> <p>It has been repeatedly observed that children vary substantially in their levels of mathematical knowledge prior to school entry with some children already showing difficulties in their mathematical skills. These difficulties have been labelled to be highly heterogeneous, although the existing body of evidence has not investigated this heterogeneity in early mathematical skills in preschool via a person-centered approach in children who are at risk for developing difficulties in academic learning. We will jointly study predictors of mathematical ability and of reading ability to fully understand the overlap and co-occurrence of learning difficulties in mathematics and in reading. We will longitudinally follow-up children from preschool to grade 1 and 2 of primary school to examine how profiles of strengths and weaknesses in preschool change over time as children go to school. To realize these objectives, we will be adopting a functionally defined recruitment approach starting from a large and mixed sample of preschoolers considered by parents or health practitioners to be at risk for developing learning difficulties. The combination of functionally defined samples with person-centered analyses, such as latent profile analysis, had been suggested as a novel way to map the heterogeneity associated with poor school performance. This will add to the research and practice on early identification and intervention in children at risk for struggling with mathematics learning.</p> <p><b>Project 2 – University of Melbourne:</b></p>

<sup>3</sup> Research Organization Registry Community. <https://ror.org/>

	<p>Although it is recognized that proficiency with core mathematical competencies is predictive of later mathematics achievement, less is known about the more general cognitive strengths and contextual factors which may influence children's learning in this important academic area. The use of dynamic assessment procedures presents an opportunity to identify factors which may influence the mathematical learning potential of preschool children. Dynamic assessment combines assessment and active teaching explicitly to measure learning potential and seeks to explore cognitive processing through mediated learning experiences. The purpose of the proposed longitudinal study is to understand the variability in the learning potential of 60 preschool learners (aged 4-5) as they transition from preschool into the first year of formal schooling. Specifically, dynamic assessments will be used to explore the extent to which young children's learning potential on tasks related to early mathematical core competencies and general cognitive processing predict later mathematical outcomes. An important aim of the research will be to identify potential protective factors (such as mathematical language knowledge) that positively affect future outcomes. Early mathematical competencies (e.g., counting, identifying order, comparing quantities, understanding symbols) will be measured using dynamic assessments at four timepoints approximately 6 months apart. This research is significant because dynamic assessments provide an individualized mechanism for assessing mathematics learning potential and can facilitate the design of interventions relevant to children in the preschool years before they are at risk of ongoing failure in mathematics.</p>
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## 2. Research Data Summary

List and describe all datasets or research materials that you plan to generate/collect or reuse during your research project. For each dataset or data type (observational, experimental etc.), provide a short name & description (sufficient for yourself to know what data it is about), indicate whether the data are newly generated/collected or reused, digital or physical, also indicate the type of the data (the kind of content), its technical format (file extension), and an estimate of the upper limit of the volume of the data<sup>4</sup>.

Dataset Name	Description	New or Reused	Digital or Physical	ONLY FOR DIGITAL DATA	ONLY FOR DIGITAL DATA	ONLY FOR DIGITAL DATA	ONLY FOR PHYSICAL DATA
				Digital Data Type	Digital Data Format	Digital Data Volume (MB, GB, TB)	Physical Volume
<b>Project 1 - KU Leuven</b>							
Recruitment	This dataset involves demographic data and background characteristics of the participants collected via questionnaires. These will be scanned and stored as .pdf files and further inputted in a spreadsheet that is saved as .csv file. The data format will be textual and numerical.	<input checked="" type="checkbox"/> Generate new data <input type="checkbox"/> Reuse existing data	<input checked="" type="checkbox"/> Digital <input checked="" type="checkbox"/> Physical	<input checked="" type="checkbox"/> Observational <input type="checkbox"/> Experimental <input type="checkbox"/> Compiled/aggregated data <input type="checkbox"/> Simulation data <input type="checkbox"/> Software <input type="checkbox"/> Other <input type="checkbox"/> NA	<input type="checkbox"/> .por <input type="checkbox"/> .xml <input type="checkbox"/> .tab <input checked="" type="checkbox"/> .csv <input checked="" type="checkbox"/> .pdf <input type="checkbox"/> .txt <input type="checkbox"/> .rtf <input type="checkbox"/> .dwg <input type="checkbox"/> .tab <input type="checkbox"/> .gml <input type="checkbox"/> other: <input type="checkbox"/> NA	<input type="checkbox"/> < 100 MB <input type="checkbox"/> < 1 GB <input checked="" type="checkbox"/> < 100 GB <input type="checkbox"/> < 1 TB <input type="checkbox"/> < 5 TB <input type="checkbox"/> < 10 TB <input type="checkbox"/> < 50 TB <input type="checkbox"/> > 50 TB <input type="checkbox"/> NA	±200 paper questionnaires (±600 pages)

<sup>4</sup> Add rows for each dataset you want to describe.

<b>TIME 1</b> <b>Preschool</b> <i>(paper-and-pencil tests &amp; computer tasks)</i>	<p>This dataset involves paper-and-pencil tests and computer tasks. The scoring forms of the paper-and-pencil tests will be scanned and stored as .pdf files. Data from these tests will be inputted in a spreadsheet that is saved as .csv file. The data format will be numerical.</p> <p>The computer tasks are designed in Open Sesame and E-prime, resulting in .csv and .edat files. Raw data files will be stored and summary statistics will be inputted in a spreadsheet that is saved as .csv file. The data format will be numerical.</p>	<input checked="" type="checkbox"/> Generate new data <input type="checkbox"/> Reuse existing data	<input checked="" type="checkbox"/> Digital <input checked="" type="checkbox"/> Physical	<input checked="" type="checkbox"/> Observational <input type="checkbox"/> Experimental <input type="checkbox"/> Compiled/aggregated data <input type="checkbox"/> Simulation data <input type="checkbox"/> Software <input type="checkbox"/> Other <input type="checkbox"/> NA	<input type="checkbox"/> .por <input type="checkbox"/> .xml <input type="checkbox"/> .tab <input checked="" type="checkbox"/> .csv <input checked="" type="checkbox"/> .pdf <input type="checkbox"/> .txt <input type="checkbox"/> .rtf <input type="checkbox"/> .dwg <input type="checkbox"/> .tab <input type="checkbox"/> .gml <input checked="" type="checkbox"/> other: .edat <input type="checkbox"/> NA	<input type="checkbox"/> < 100 MB <input type="checkbox"/> < 1 GB <input checked="" type="checkbox"/> < 100 GB <input type="checkbox"/> < 1 TB <input type="checkbox"/> < 5 TB <input type="checkbox"/> < 10 TB <input type="checkbox"/> < 50 TB <input type="checkbox"/> > 50 TB <input type="checkbox"/> NA	±200 scoring form booklets (±2000 pages)

TIME 2 Middle and end grade 1 of primary school ( <i>paper-and- pencil tests</i> )	This dataset involves paper-and- pencil tests. The scoring forms of these tests will be scanned and stored as .pdf files. Data from these tests will be inputted in a spreadsheet that is saved as .csv file. The data format will be numerical.	<input checked="" type="checkbox"/> Generate new data <input type="checkbox"/> Reuse existing data	<input checked="" type="checkbox"/> Digital <input checked="" type="checkbox"/> Physical	<input checked="" type="checkbox"/> Observational <input type="checkbox"/> Experimental <input type="checkbox"/> Compiled/ aggregated data <input type="checkbox"/> Simulation data <input type="checkbox"/> Software <input type="checkbox"/> Other <input type="checkbox"/> NA	<input type="checkbox"/> .por <input type="checkbox"/> .xml <input type="checkbox"/> .tab <input checked="" type="checkbox"/> .csv <input checked="" type="checkbox"/> .pdf <input type="checkbox"/> .txt <input type="checkbox"/> .rtf <input type="checkbox"/> .dwg <input type="checkbox"/> .tab <input type="checkbox"/> .gml <input type="checkbox"/> other: <input type="checkbox"/> NA	<input type="checkbox"/> < 100 MB <input type="checkbox"/> < 1 GB <input checked="" type="checkbox"/> < 100 GB <input type="checkbox"/> < 1 TB <input type="checkbox"/> < 5 TB <input type="checkbox"/> < 10 TB <input type="checkbox"/> < 50 TB <input type="checkbox"/> > 50 TB <input type="checkbox"/> NA	2x ±200 scoring booklets (±16000 pages)
TIME 3 Middle and end grade 2 of primary school ( <i>paper-and- pencil tests</i> )	This dataset involves paper-and- pencil tests. The scoring forms of these tests will be scanned and stored as .pdf files. Data from these tests will be inputted in a spreadsheet that is saved as .csv file. The data format will be numerical.	<input checked="" type="checkbox"/> Generate new data <input type="checkbox"/> Reuse existing data	<input checked="" type="checkbox"/> Digital <input checked="" type="checkbox"/> Physical	<input checked="" type="checkbox"/> Observational <input type="checkbox"/> Experimental <input type="checkbox"/> Compiled/ aggregated data <input type="checkbox"/> Simulation data <input type="checkbox"/> Software <input type="checkbox"/> Other <input type="checkbox"/> NA	<input type="checkbox"/> .por <input type="checkbox"/> .xml <input type="checkbox"/> .tab <input checked="" type="checkbox"/> .csv <input checked="" type="checkbox"/> .pdf <input type="checkbox"/> .txt <input type="checkbox"/> .rtf <input type="checkbox"/> .dwg <input type="checkbox"/> .tab <input type="checkbox"/> .gml <input type="checkbox"/> other: <input type="checkbox"/> NA	<input type="checkbox"/> < 100 MB <input type="checkbox"/> < 1 GB <input checked="" type="checkbox"/> < 100 GB <input type="checkbox"/> < 1 TB <input type="checkbox"/> < 5 TB <input type="checkbox"/> < 10 TB <input type="checkbox"/> < 50 TB <input type="checkbox"/> > 50 TB <input type="checkbox"/> NA	2x ±200 scoring booklets (±16000 pages)

Project 2 - University of Melbourne							
		<input type="checkbox"/> Generate new data <input type="checkbox"/> Reuse existing data	<input type="checkbox"/> Digital <input type="checkbox"/> Physical	<input type="checkbox"/> Observational <input type="checkbox"/> Experimental <input type="checkbox"/> Compiled/aggregated data <input type="checkbox"/> Simulation data <input type="checkbox"/> Software <input type="checkbox"/> Other <input type="checkbox"/> NA	<input type="checkbox"/> .por <input type="checkbox"/> .xml <input type="checkbox"/> .tab <input type="checkbox"/> .csv <input type="checkbox"/> .pdf <input type="checkbox"/> .txt <input type="checkbox"/> .rtf <input type="checkbox"/> .dwg <input type="checkbox"/> .tab <input type="checkbox"/> .gml <input type="checkbox"/> other: <input type="checkbox"/> NA	<input type="checkbox"/> < 100 MB <input type="checkbox"/> < 1 GB <input type="checkbox"/> < 100 GB <input type="checkbox"/> < 1 TB <input type="checkbox"/> < 5 TB <input type="checkbox"/> < 10 TB <input type="checkbox"/> < 50 TB <input type="checkbox"/> > 50 TB <input type="checkbox"/> NA	

  

**GUIDANCE:**

DATA CAN BE DIGITAL OR PHYSICAL (FOR EXAMPLE BIOBANK, BIOLOGICAL SAMPLES, ...). DATA TYPE: DATA ARE OFTEN GROUPED BY TYPE (OBSERVATIONAL, EXPERIMENTAL ETC.), FORMAT AND/OR COLLECTION/GENERATION METHOD.

EXAMPLES OF DATA TYPES: OBSERVATIONAL (E.G. SURVEY RESULTS, SENSOR READINGS, SENSORY OBSERVATIONS); EXPERIMENTAL (E.G. MICROSCOPY, SPECTROSCOPY, CHROMATOGRAMS, GENE SEQUENCES); COMPILED/AGGREGATED DATA<sup>5</sup> (E.G. TEXT & DATA MINING, DERIVED VARIABLES, 3D MODELLING); SIMULATION DATA (E.G. CLIMATE MODELS); SOFTWARE, ETC.

EXAMPLES OF DATA FORMATS: TABULAR DATA (.POR, .SPSS, STRUCTURED TEXT OR MARK-UP FILE XML, .TAB, .CSV), TEXTUAL DATA (.RTF, .XML, .TXT), GEOSPATIAL DATA (.DWG, .GML, ..), IMAGE DATA, AUDIO DATA, VIDEO DATA, DOCUMENTATION & COMPUTATIONAL SCRIPT.

DIGITAL DATA VOLUME: PLEASE ESTIMATE THE UPPER LIMIT OF THE VOLUME OF THE DATA PER DATASET OR DATA TYPE.

PHYSICAL VOLUME: PLEASE ESTIMATE THE PHYSICAL VOLUME OF THE RESEARCH MATERIALS (FOR EXAMPLE THE NUMBER OF RELEVANT BIOLOGICAL SAMPLES THAT NEED TO BE STORED AND PRESERVED DURING THE PROJECT AND/OR AFTER).

<sup>5</sup> These data are generated by combining multiple existing datasets.



<p>If you reuse existing data, please specify the source, preferably by using a persistent identifier (e.g. DOI, Handle, URL etc.) per dataset or data type.</p>	<p><b>KU Leuven:</b> /</p> <p><b>University of Melbourne:</b></p>
<p>Are there any ethical issues concerning the creation and/or use of the data (e.g. experiments on humans or animals, dual use)? If so, please describe these issues further and refer to specific datasets or data types when appropriate.</p>	<p><b>KU Leuven:</b></p> <p><input checked="" type="checkbox"/> Yes, human subject data</p> <p><input type="checkbox"/> Yes, animal data</p> <p><input type="checkbox"/> Yes, dual use</p> <p><input type="checkbox"/> No</p> <p>If yes, please describe:</p> <p>To deepen our understanding of the heterogeneity in preschoolers at risk for mathematical learning difficulties, we will collect data of children at risk for mathematical learning difficulties. At different time-points (Time 1, 2 &amp; 3), we will test their mathematical, reading and cognitive domain-general skills (e.g., working memory, language and spatial skills) and collect information about relevant non-cognitive factors (demographic &amp; background information (e.g., socioeconomic status, home environment...)). We will pseudonymize the collected data and will follow KU Leuven's GDPR code of using and processing personal data. Furthermore, we will submit an ethical application to the Social and Societal Ethics Committee KU Leuven (SMEC) and register this application via the PRET tool before the start of the project.</p> <p><b>University of Melbourne:</b></p> <p><input type="checkbox"/> Yes, human subject data</p> <p><input type="checkbox"/> Yes, animal data</p> <p><input type="checkbox"/> Yes, dual use</p> <p><input type="checkbox"/> No</p> <p>If yes, please describe:</p>

<p>Will you process personal data<sup>6</sup>? If so, briefly describe the kind of personal data you will use. Please refer to specific datasets or data types when appropriate. If available, add the reference to your file in your host institution's privacy register.</p>	<p><b>KU Leuven:</b></p> <p><input checked="" type="checkbox"/> Yes  <input type="checkbox"/> No</p> <p>If yes:</p> <ul style="list-style-type: none"> <li>- Short description of the kind of personal data that will be used:  Personal data of the participants are name and date-of-birth. These are collected for ID purposes during data collection. It also includes contact information (e.g., email address, name of the school...) and signed informed consents. This information is only available to researchers involved in recruitment and data collection (i.e., Bert De Smedt &amp; Sara Peeters). The file linking the code and personal identifiers age/dob is only accessible to these researchers. It is stored in a personal OneDrive folder of Bert De Smedt and a personal OneDrive folder of Sara Peeters. For the remainder of the study, all derivative data will be coded, and thus pseudonymized, and stored in a different shared OneDrive folder.  We will follow KU Leuven's GDPR code of using and processing personal data. Furthermore, an ethics application for SMEC will be submitted and registered via the PRET tool.</li> <li>- Privacy Registry Reference:  Reference will be provided as soon as available within KU Leuven.</li> </ul> <p><b>University of Melbourne:</b></p> <p><input type="checkbox"/> Yes  <input type="checkbox"/> No</p> <p>If yes:</p> <ul style="list-style-type: none"> <li>- Short description of the kind of personal data that will be used:</li> <li>- Privacy Registry Reference:</li> </ul>
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<sup>6</sup> See Glossary Flemish Standard Data Management Plan



<p>Are there any other legal issues, such as intellectual property rights and ownership, to be managed related to the data you (re)use? If so, please explain to what data they relate and which restrictions will be asserted.</p>	<p><b>KU Leuven:</b>  <input checked="" type="checkbox"/> Yes  <input type="checkbox"/> No          If yes, please explain:          An agreement regarding the intellectual property rights and ownership of the data collected has been written down on page 12 of Sara Peeters' graduate researcher agreement. The agreement states that "each party (i.e., KU Leuven and the University of Melbourne), will own the Intellectual Property (IP) it creates with respect to the research topic or project and provides the parties with a royalty-free, non-exclusive licence to use such IP for the purposes of the program. Where the parties jointly create IP as part of the program, the parties will own such jointly created IP as tenants in common in shares which are proportionate to their contribution to the jointly-created IP, and each party grants the other party a non-exclusive, royalty-free licence to use such IP for the other party's own non-commercial, teaching and research purposes."</p> <p><b>University of Melbourne:</b>  <input type="checkbox"/> Yes  <input type="checkbox"/> No          If yes, please explain:</p>
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### 3. Documentation and Metadata

Clearly describe what approach will be followed to capture the accompanying information necessary to keep **data understandable and usable**, for yourself and others, now and in the future (e.g. in terms of documentation levels and types required, procedures used, Electronic Lab Notebooks, README.txt files, Codebook.tsv etc. where this information is recorded).

**KU Leuven:**

We will make a codebook documenting the study design, sampling, measures and variables that allows a secondary data analyst to use the data accurately and effectively.

All tests materials and blank informed consents will be made available on the open science framework (OSF) account of the KU Leuven PI Bert De Smedt (<https://osf.io/cmvdh/>). This documentation includes per measure, how it was constructed and how performance indices are calculated. We will pre-register our data-analysis plan on OSF for each measurement time point. It will be made available after publication, along with the respective dataset.

**University of Melbourne:**

<p>Will a metadata standard be used to make it easier to <b>find and reuse the data</b>?</p> <p>If so, please specify which metadata standard will be used. If not, please specify which metadata will be created to make the data easier to find and reuse.</p> <p><i>REPOSITORIES COULD ASK TO DELIVER METADATA IN A CERTAIN FORMAT, WITH SPECIFIED ONTOLOGIES AND VOCABULARIES, I.E. STANDARD LISTS WITH UNIQUE IDENTIFIERS.</i></p>	<p><b>KU Leuven:</b></p> <p><input type="checkbox"/> Yes</p> <p><input checked="" type="checkbox"/> No</p> <p>If yes, please specify (where appropriate per dataset or data type) which metadata standard will be used:</p> <p>If no, please specify (where appropriate per dataset or data type) which metadata will be created: There are no metadata standards available for behavioral data. We will document the metadata in a .csv file in which all variables and their description are listed.</p> <p><b>University of Melbourne:</b></p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p>If yes, please specify (where appropriate per dataset or data type) which metadata standard will be used:</p> <p>If no, please specify (where appropriate per dataset or data type) which metadata will be created:</p>
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#### 4. Data Storage & Back-up during the Research Project

<p>Where will the data be stored?</p>	<p><b>KU Leuven:</b>            Questionnaires, paper-and-pencil data and informed consents will be separately archived in a locked room at KU Leuven.            Digital data will be stored in a shared folder on OneDrive. This folder will only be accessible by the KU Leuven principal investigator (Bert De Smedt) and the PhD researcher (Sara Peeters) working on the project. The KU Leuven OneDrive is password protected. The data will be on the shared OneDrive during the project. After completion of the project all data will be transferred to the OneDrive archive of Bert De Smedt.            Pseudonymized data will be made available on OSF when a study is published.</p> <p><b>University of Melbourne:</b></p>
<p>How will the data be backed up?</p> <p><i>WHAT STORAGE AND BACKUP PROCEDURES WILL BE IN PLACE TO PREVENT DATA LOSS? DESCRIBE THE LOCATIONS, STORAGE MEDIA AND PROCEDURES THAT WILL BE USED FOR STORING AND BACKING UP DIGITAL AND NON-DIGITAL DATA DURING RESEARCH.<sup>7</sup></i></p> <p><i>REFER TO INSTITUTION-SPECIFIC POLICIES REGARDING BACKUP PROCEDURES WHEN APPROPRIATE.</i></p>	<p><b>KU Leuven:</b>            The data will be stored on the KU Leuven OneDrive. This data storage location has daily automatic back-up procedures.</p> <p><b>University of Melbourne:</b></p>

<sup>7</sup> Source: Ghent University Generic DMP Evaluation Rubric: <https://osf.io/2z5g3/>

<p>Is there currently sufficient storage &amp; backup capacity during the project? If yes, specify concisely. If no or insufficient storage or backup capacities are available, then explain how this will be taken care of.</p>	<p><b>KU Leuven:</b>  <input checked="" type="checkbox"/> Yes  <input type="checkbox"/> No          If yes, please specify concisely:          The total estimated amount of digital data is 25 GB. The KU Leuven OneDrive for Business (storage capacity 2 TB) has sufficient storage &amp; backup capacity during the project.           If no, please specify:</p> <p><b>University of Melbourne:</b>  <input type="checkbox"/> Yes  <input type="checkbox"/> No          If yes, please specify concisely:           If no, please specify:</p>
<p>How will you ensure that the data are securely stored and not accessed or modified by unauthorized persons?</p> <p><i>CLEARLY DESCRIBE THE MEASURES (IN TERMS OF PHYSICAL SECURITY, NETWORK SECURITY, AND SECURITY OF COMPUTER SYSTEMS AND FILES) THAT WILL BE TAKEN TO ENSURE THAT STORED AND TRANSFERRED DATA ARE SAFE. 7</i></p>	<p><b>KU Leuven:</b>          Digital data will be stored in a shared OneDrive folder, which can only be accessed by the involved KU Leuven researchers. The data will be pseudonymized by removing personal data and by storing this data separately from the research data on the personal OneDrive of Bert De Smedt and Sara Peeters. Multi-factor authentication is activated for the KU Leuven login of all researchers having access to the data.</p> <p><b>University of Melbourne:</b></p>



What are the expected costs for data storage and backup during the research project? How will these costs be covered?	<p><b>KU Leuven:</b> We expect no costs for data storage and backup on the OneDrive for business during the research project.</p> <p><b>University of Melbourne:</b></p>
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#### 5. Data Preservation after the end of the Research Project

Which data will be retained for at least five years (or longer, in agreement with other retention policies that are applicable) after the end of the project? In case some data cannot be preserved, clearly state the reasons for this (e.g. legal or contractual restrictions, storage/budget issues, institutional policies...).	<p><b>KU Leuven:</b> All data will be stored for 10 years in line with the BOF data preservation requirements.</p> <p><b>University of Melbourne:</b></p>
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<p>Where will these data be archived (stored and curated for the long-term)?</p>	<p><b>KU Leuven:</b>  Offline copies (questionnaire, paper-and-pencil data) and informed consents will be separately archived in a locked room for the expected 10 year period after the end of the project. They will be destroyed after the 10 year period.  Digital data will be stored in OneDrive folders of Bert De Smedt for at least 10 years.  After publication of a study, the pseudonymized dataset that was analysed in that study will be made available on the OSF account of Bert De Smedt (<a href="https://osf.io/cmvdh/">https://osf.io/cmvdh/</a>).</p> <p><b>University of Melbourne:</b></p>
<p>What are the expected costs for data preservation during the expected retention period? How will these costs be covered?</p>	<p><b>KU Leuven:</b>  We expect no costs for data preservation during the expected retention period.</p> <p><b>University of Melbourne:</b></p>

## 6. Data Sharing and Reuse

Will the data (or part of the data) be made available for reuse after/during the project? Please explain per dataset or data type which data will be made available.

*NOTE THAT 'AVAILABLE' DOES NOT NECESSARILY MEAN THAT THE DATA SET BECOMES OPENLY AVAILABLE, CONDITIONS FOR ACCESS AND USE MAY APPLY. AVAILABILITY IN THIS QUESTION THUS ENTAILS BOTH OPEN & RESTRICTED ACCESS. FOR MORE INFORMATION: [HTTPS://WIKI.SURFNET.NL/DISPLAY/STANDARDS/INFO-EU-REPO/#INFO-EUREPO-ACCESSRIGHTS](https://wiki.surfnet.nl/display/STANDARDS/INFO-EU-REPO/#INFO-EUREPO-ACCESSRIGHTS)*

### KU Leuven:

- ☐ Yes, in an Open Access repository
- ☒ Yes, in a restricted access repository (after approval, institutional access only, ...)
- ☐ No (closed access)
- ☐ Other, please specify:

The pseudonymized dataset of a study will be uploaded on the OSF account of the KU Leuven PI (Bert De Smedt) in a csv format (<https://osf.io/cmvdh/>) upon publication of a study.

### University of Melbourne:

- ☐ Yes, in an Open Access repository
- ☐ Yes, in a restricted access repository (after approval, institutional access only, ...)
- ☐ No (closed access)
- ☐ Other, please specify:

If access is restricted, please specify who will be able to access the data and under what conditions.

### KU Leuven:

The pseudonymized dataset of a study will be shared in a csv format on the OSF platform. It will be available to anyone provided that they give appropriate credit.

### University of Melbourne:

<p>Are there any factors that restrict or prevent the sharing of (some of) the data (e.g. as defined in an agreement with a 3rd party, legal restrictions)? Please explain per dataset or data type where appropriate.</p>	<p><b>KU Leuven:</b></p> <p> <input type="checkbox"/> Yes, privacy aspects  <input type="checkbox"/> Yes, intellectual property rights  <input type="checkbox"/> Yes, ethical aspects  <input type="checkbox"/> Yes, aspects of dual use  <input type="checkbox"/> Yes, other  <input checked="" type="checkbox"/> No         </p> <p>If yes, please specify:</p>  <p><b>University of Melbourne:</b></p> <p> <input type="checkbox"/> Yes, privacy aspects  <input type="checkbox"/> Yes, intellectual property rights  <input type="checkbox"/> Yes, ethical aspects  <input type="checkbox"/> Yes, aspects of dual use  <input type="checkbox"/> Yes, other  <input type="checkbox"/> No         </p> <p>If yes, please specify:</p>
<p>Where will the data be made available? If already known, please provide a repository per dataset or data type.</p>	<p><b>KU Leuven:</b></p> <p>The pseudonymized dataset will be uploaded in a csv format at the OSF on the account of the KU Leuven PI Bert De Smedt (<a href="https://osf.io/cmvdh/">https://osf.io/cmvdh/</a>).</p> <p><b>University of Melbourne:</b></p>

<p><b>When will the data be made available?</b></p> <p><i>THIS COULD BE A SPECIFIC DATE (DD/MM/YYYY) OR AN INDICATION SUCH AS 'UPON PUBLICATION OF RESEARCH RESULTS'.</i></p>	<p><b>KU Leuven:</b> The pseudonymized dataset of a study will be uploaded on the OSF account of the KU Leuven PI upon publication of a study.</p> <p><b>University of Melbourne:</b></p>
<p><b>Which data usage licenses are you going to provide? If none, please explain why.</b></p> <p><i>A DATA USAGE LICENSE INDICATES WHETHER THE DATA CAN BE REUSED OR NOT AND UNDER WHAT CONDITIONS. IF NO LICENCE IS GRANTED, THE DATA ARE IN A GREY ZONE AND CANNOT BE LEGALLY REUSED. DO NOTE THAT YOU MAY ONLY RELEASE DATA UNDER A LICENCE CHOSEN BY YOURSELF IF IT DOES NOT ALREADY FALL UNDER ANOTHER LICENCE THAT MIGHT PROHIBIT THAT.</i></p> <p><i>EXAMPLE ANSWER: E.G. "DATA FROM THE PROJECT THAT CAN BE SHARED WILL BE MADE AVAILABLE UNDER A CREATIVE COMMONS ATTRIBUTION LICENSE (CC-BY 4.0), SO THAT USERS HAVE TO GIVE CREDIT TO THE ORIGINAL DATA CREATORS." <sup>8</sup></i></p>	<p><b>KU Leuven:</b> The pseudonymized dataset of a study will be made available via the OSF account of Bert De Smedt under a Creative Commons Attribution license (CC-BY 4.0), so that users have to give credit to the original data creators.</p> <p><b>University of Melbourne:</b></p>

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<sup>8</sup> Source: Ghent University Generic DMP Evaluation Rubric: <https://osf.io/2z5g3/>

<p>Do you intend to add a PID/DOI/accession number to your dataset(s)? If already available, please provide it here.</p> <p><i>INDICATE WHETHER YOU INTEND TO ADD A PERSISTENT AND UNIQUE IDENTIFIER IN ORDER TO IDENTIFY AND RETRIEVE THE DATA.</i></p>	<p><b>KU Leuven:</b>  <input checked="" type="checkbox"/> Yes  <input type="checkbox"/> No          If yes:          We intend to add a PID/DOI/accession number to our dataset but this number is not available yet.</p> <p><b>University of Melbourne:</b>  <input type="checkbox"/> Yes  <input type="checkbox"/> No          If yes:</p>
<p>What are the expected costs for data sharing? How will these costs be covered?</p>	<p><b>KU Leuven:</b>          There are no costs expected.</p> <p><b>University of Melbourne:</b></p>

## 7. Responsibilities

<p>Who will manage data documentation and metadata during the research project?</p>	<p><b>KU Leuven:</b>          The data documentation and metadata during the research project will be managed by Bert De Smedt (the KU Leuven principal investigator) supported by Sara Peeters (the PhD researcher).</p> <p><b>University of Melbourne:</b></p>
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Who will manage data storage and backup during the research project?	<p><b>KU Leuven:</b> The data storage and backup during the research project will be managed by Bert De Smedt (the KU Leuven principal investigator) supported by Sara Peeters (the PhD researcher).</p> <p><b>University of Melbourne:</b></p>
Who will manage data preservation and sharing?	<p><b>KU Leuven:</b> The data storage and backup during the research project will be managed by Bert De Smedt (the KU Leuven principal investigator) supported by Sara Peeters (the PhD researcher).</p> <p><b>University of Melbourne:</b></p>
Who will update and implement this DMP?	<p><b>KU Leuven:</b> The PI of KU Leuven (Bert De Smedt) bears the end responsibility of updating &amp; implementing this DMP.</p> <p><b>University of Melbourne:</b></p>