

How to write a data management plan: What is a data management plan?

Transcript of video

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Planning may be tedious work. But it is definitely worth the effort. And it is not an overwhelming task to write a data management plan, if you know what it is and what to include. In this video we will introduce you to the elements you should include in your data management plan.

Let us start by looking at the research data lifecycle illustration, which may be familiar to you, as this is presented in other video sessions. Planning is obviously something you do early, and before you go out and collect data.

But the Data Management Plan includes more than just how to collect the data. You need to make a plan for all the stages of the research data life cycle. So it is wise – or even crucial – to gain knowledge about the issues to consider in all these steps, before you start the planning. Make sure to invest a little time to do just that.

The Data Management Plan is thus a plan for how to manage your research data, from the start of your project up to the end where your data are archived and, if possible, made public. It should therefore cover all phases in the research data management life cycle: Searching, collection or creation, processing, analysis and storage as well as archiving and sharing

Please do not view the Data Management Plan as an unnecessary administrative burden. It is a tool to help you through your project. As your project proceeds, you will gain new knowledge on the status of your project, and what you should do in the time ahead. Based on this, you should update your DMP to reflect this new knowledge. It could be that you run into some problem while collecting your data, so that you need to do a second round of data collection, which delays your research process. Your DMP should be updated with these new conditions. This way, the Data Management Plan will be an active tool for your own benefit.

By working carefully with your DMP, and keeping it updated, the DMP will help you see what you need to do, step by step. This will make your project, and everything that has to do with Research Data Management more manageable. And you will avoid the feeling of drowning in all the tasks ahead of you.

Have you heard the saying of “How do you eat an elephant”? The answer, and the plan for such a task, is “One bite at a time”. The point is, of course, that we need to chunk the big tasks down to bites that we can manage, one by one. And that is one of the main purposes of the data management plan. And that way, you will see that yes, this is something you are able to do.

Here is a list of what typically is included in a Data Management Plan. [SLIDE 5]

Some general information about the research project will be helpful, for you to keep focus on the issues of the project: What is the title of your research project, and what is the research question you are investigating? This information will also be a helpful introduction for others you want to discuss your project with.

Who is responsible for what, and who has rights to what within your project and your data? Describe this in detail for each data management activity in your project. This is more important the more people are involved in your project. “Too many cooks spoil the broth”, is a saying. So it is good advice to make it clear which cook is responsible for what, and document this in your Data Management Plan, for everyone involved to see.

At an early stage you need to think through your resource needs, for the activities ahead. Do not risk finding yourself out in the field, far away from most support services, and discovering that there was something vital you forgot to bring. Or that you realise, in the middle of an activity, that you do not have the funding to carry out what you intended to do. Be realistic and find out what things cost.

You should think carefully through how you will do the data collecting or data generating activity. The method you choose may be crucial to the quality of your data, and whether they enable the analysis you intend to do. This part of your planning activity is of course very important. And you will likely benefit from discussing your planned methods with your supervisors and peers. By expressing your plans in detail in your DMP, you will better see possible pitfalls. And you will avoid any misunderstandings when discussing your plans with others.

Furthermore, you may reuse your written plan on your data collecting or generating methods when you move on to archive your data and also when writing your research papers.

How will you store the data out in the field or at the lab, and how do you plan to take backups? It goes without saying that this is important. Do not risk losing your data!

How will you document and describe your dataset, and what metadata should you gather? This may be viewed as information closely related to our next point, which is how you plan to archive and share your data.

It is good advice to check out, at an early stage, and before you go out in the field, what archiving option exists for your data. If you find a suitable archive, have a look at the metadata structure of this archive, and how the archive’s policy requires or recommends that you document your data. This way you will know what information to gather, and what metadata you should collect while doing the data collecting or generating activity.

Can your data be archived openly? Or are there sensitivity issues in your data? If so, how and where should the data be archived? Sensitivity does not necessarily mean that your data cannot be archived. Perhaps you can archive aggregated and anonymised data. Or perhaps you need to archive some of your data with restricted access. The Data Management Plan makes you reflect on and deal with questions like this, and write down and explain how you will handle them.

If your project involves information from or about persons, you will likely need approval from some local or national authority for your project. Make sure to enquire properly whether your project needs such approval, and from which authority. You will likely need approval both to carry out your project, and also for your plans on how to archive the data after the project ends.

Information that you obtain from personal interviews with people may not necessarily be sensitive.

But as long as your data involve people as objects in your research, you will need consent from the respondents on how you plan to use the data. You are not allowed to use such data in any other way than what the respondents have consented to. This also includes how the data may be archived – open or closed. Therefore, make sure you plan carefully what you need your respondents to consent to. Otherwise, you may ruin the possibility of getting your nice dataset archived.

Now, please pause the video, and take a few moments to evaluate your own planning. This is purely for your own benefit.