ASSIGNMENTS

1) Presentation by Leon

2) Preparation time:

- Go to https://osf.io/. Enter your full name, your email address and a password to register. Confirm the registration email. After you confirmed your email address, go back to https://osf.io/ and use the login button to enter your information and login.

3) It's project time!

After you have logged in, you will see the dashboard page. This page contains all of your projects. On the right hand side, you see a button that says 'Create a project'. Click on this button, type in the title 'Research Heidag OS 2015-2016 + your name' and if you want, you can give it a description. We'll work on the template part later on. For now, you can click on 'Create'.
After you have done this, you should see a project page in front of you.

4) Project information

On top, you should now see your own name as you are currently the only contributor. You'll also see the date created and after Category, it should state: Project. You can give your project a description (if you did not yet do this) and you can license your project. This last part is only important if you want to open up (parts of) your project. If you have any questions about licenses, just let me know.

Moving on, you should see the Wiki tab. The Wiki tab allows you to create a more detailed explanation of your project, for collaborators or outsiders, just like a normal 'Wikipedia' page.

Finally, you should see a link for citation purposes on the right. This is the same link as you currently see in your web browser on top.

Now, let us actually start working with OSF!

5) Adding a file

First, create a text editor file (Word/Pages/whatever) and add the text "This is a test document for the Research Heidag OS 2015-2016." Save this file somewhere where you can locate it again and use the name 'Research Heidag'. Now go back to OSF.
Below the tab Files, you should see – OSF Storage. Click on this button. Now click on the 'Create folder' button and give this folder the name Archive. After you have created the folder, click on it and then click 'Upload'. Now go to the place where you saved your file and open it, as you would normally upload something. After this is uploaded, click on the file itself (e.g., Research Heidag.docx). You should now see something like Figure 1.

In principle, you can upload anything you want to OSF. OSF (currently) knows an unlimited storage area but the file size of one file is limited to 5 GB.

6) Uploading a revised file

Now open 'Research Heidag' on your computer again and add the line "I just changed something!" in this file and save. Go back to OSF and click on the Archive folder in OSF. Again, click on Upload and locate the 'Research Heidag' file and upload it again. You have now replaced your file with a newer version. Now click on View in the Files tab. You should be able to see the document and the text inside it. Furthermore, you can share it as usual or download it.

We will now move on to the version control part of OSF. Version control is a system that records changes to a file or set of files over time so that you can recall specific versions later. If you click on Revisions on the right top side, then you should see something like Figure 2 but with your own name. You'll also see that both versions of your file are 'time stamped'. You can also download both versions if you want to, leaving a perfect trace of whom did what and when.

7) Adding a component

Return to the main project page by clicking on 'Research Heidag OS 2015-2016' at the top left of your browser screen. On the right side you can now see 'Add component'. A component basically is a project in itself with all properties of a normal project. Click on 'Add component' and give it the name 'materials' and the category 'Methods and Measures'. Now click on Add. You should automatically go to this component. As you can see, it looks exactly the same as the main project. We'll return to the usefulness of a component later on. You can now return back to your main project by clicking on the up-arrow on the very top left side of the screen (next to 'materials'). You should now see the component 'materials' on the right hand side of your screen. Furthermore, you'll also see that the tab Files now contains a component.

8) Adding a contributor

Go back to your component 'materials' by clicking on it. On the top bar you should see the tab Contributors which you should click on. You'll see that you are currently the only contributor, but we want to change this. Click on the Add button next to Contributors. Type in the last name of the person on your left and if there are multiple people that show up, select the correct one by clicking on the plus sign. You will have to assign permissions (read, read/write, or administrator). Permit your contributor to be an Administrator and click on Add. The person on your left should now be listed as a contributor to the 'materials' component. NOTE: this person is currently not a contributor on the main project and can only view, edit, and delete this component of the project. Of course, you can add contributors to your main project at which point they will be able to edit everything in the project with the right permissions.

As a check, you should now see the project of your neighbor in your project list (find this through 'My Dashboard').

9) Intermezzo

Go back to the main page of your project. By now you'll have noticed the advantages of OSF as a project/data management tool: it has extensive version control as well as an extensive logbook (see

the tab 'Recent activity' in the bottom right part of your screen. This logbook tracks everything that you do and saves this for the entire existence of the project). Furthermore, the flexibility of working with components adds an extra layer of control on your project and who sees/does what. This especially helps when you want to manage privileges differently across components.

10) Share your components/project

Perhaps you want to share your project/specific components with others, say, a senior scholar that might help you out with some research issues. Go to the Contributors tab and click on Add next to 'View-only links'. You can select your entire project/specific components to be shared where the viewer cannot edit anything but can view and download everything that you have shared. Next to blindly sharing (pun intended), you can also anonymously share your project. If peer reviewers would like more in-depth access to your research project, the double blind process is not violated while you can still allow reviewers to extensively review your paper and the underlying data/analyses.

11) Add-ons

Time to work with some add-ons. OSF works seamless with other services such as Dataverse, Mendeley, Dropbox etc. First, make another component in the main project so we can freely experiment (you can call it Dropbox). Second, go to the Settings tab within this component and tag Dropbox in the Add-ons list, then hit Apply. You'll get a list of Terms (which you should always read!) and if you agree, you may Confirm and hit Apply again. If this is your first integration between OSF and Dropbox, you'll have to give OSF access to Dropbox. After that, you scroll down a little and click 'Import Account from Profile'. Last, you can select which folder you want to connect to this OSF project/component and you may hit save. OSF instantly integrates all your Dropbox files into the project/component. If you still remember how, you can even see that this still allows for version control (including metadata) but in a less detailed way.

12) Bonus feature: Make your files publicly available

The name says it: Open Science Framework allows you to practice open science and make your research files available to more people than just your co-authors, if you want to. The default option is always that files are privately stored and making them public always requires extra confirmation.

Go to the main page of your project and at the top right you should see a button 'Make Public'. You may now click the button and confirm the public availability of your project. After you made your project publicly available, you should log out of OSF.

We will now try to locate the project of a colleague: next to your name at the top, there is a search button. Click on it and try to find the public project of the person to your right (hint: last names tend to help). Confirm that he/she has done all of the above (e.g., you should be a contributor on this project).

13) A teaser in reproducible research

Now back to work: it is time for the real deal. To make data and project management work really well, you should always ask yourself: Can my future-self or anyone else reproduce the results within a reasonable amount of time? Theoretically (1): say that you wake up one morning with amnesia related to your current project, but you are still a very capable scientist. Are you able to understand what you did the day before?

Theoretically (2): one of your co-author asks for your project folder because he wants to verify your analyses. Is it going to take you hours/days to prepare your project so your co-author can actually understand what to do?

There is a rank-order in this: (1) Will you be capable of reproducing your own results in two years from now? (2) Will your co-authors be able to do this? (3) Will a colleague in your department that is not a co-author be able to do this? (4) Will an independent researcher, who is in your area of expertise, be able to do this?

If the answer to one or more of these questions is no: now is the time to pay attention.

Setting up a project like this is something you'll have to get used to. Today, we'll try to make a start. First, you'll need a proper and clean structure for your project. An example of this can be found by going to this project: ['Transparent project management template'](#).

A very useful function of OSF is that you can duplicate a project so that you can use it for yourself without actually editing the 'borrowed' project. Note: for this to work, a project needs to be set in 'Public' mode. You can do this by clicking on the button on the top right side of your screen. It is the button with the arrow leaving a box (hovering your mouse over this button shows 'Duplicate'). Click on it and select 'Fork this Project. This will copy the structure of the duplicated project and it copies any files within the project. 'Copy Project Structure' only copies the structure, but does not copy any files within the project. The structure of this project fits with the requirements for the data package that have just been presented to you. You can now use this structure for future projects, if you want.

FINAL ASSIGNMENT PART 1

Open the project folder that you have brought with you, as requested by the workshop hosts. The assignment is: try to reproduce the main findings of your paper within 10 minutes. Main findings imply the correlation table and the first table with analyses related to your hypotheses.

Were you able to do this? If yes, well done!

If not, you should start worrying..

You are <u>not</u> allowed to scroll down for the final assignment until the workshop masters tell you to.

===================== SCROLL DOWN FOR FINAL ASSIGNMENT =========================

FINAL ASSIGNMENT PART 2

Now hand over your files to the person on your left (or you may hand over your laptop if you want).

This person must now reproduce the main findings of your paper **without your help** within 15 minutes. Main findings imply the correlation table and the first table with analyses related to your hypotheses. Good luck!

You are <u>not</u> allowed to scroll down for the final remark until the workshop masters tell you to.

===================== SCROLL DOWN FOR FINAL REMARK =============================

Final remark

After 15 minutes, corroborate the work of this person and check whether he/she was able to reproduce the results in your paper. If yes, well done!

If not: well, you get the idea ☺