

We4Change: Girls and Women Connecting for Environmental Change

We4Change Changemakers Event Curriculum

Trainer instructions for the workshop
Data visualization with Tableau



Authors:
Digital Leadership Institute, Belgium
2022



This work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.
To view a copy of this license, visit <http://creativecommons.org/licenses/by-sa/4.0/>



Disclaimer: This analysis is published as part of the project “Girls and Women Connecting for Environmental Change” funded under the Erasmus Plus programme of the European Union. The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Contents

Introduction.....	4
About the workshop	4
Learning objectives.....	4
Set-up instructions.....	5
Engage the students	5
Further resources.....	5

Introduction

Data is a set of facts or figures that can be used to make decisions or draw conclusions. It can be qualitative or quantitative, and can take many forms such as numbers, images, words, or videos. Data can be collected from sources such as surveys, interviews, or experiments.

Having visual data can be very beneficial because it makes it easier to understand and interpret the information. Visuals can help to highlight patterns and trends, making it easier to draw conclusions and identify problems. Additionally, visuals can provide a more comprehensive picture of the data, so that it can be more accurately analyzed.

Thus, being able to take data and convert it into a visual format can be very beneficial, which is what we will try to teach the participants of this workshop.

About the workshop

This workshop will give the participants a general idea of what data is, what format it comes in and the importance of it. It will show students that raw data in the form of spreadsheets and their like can be hard to decipher, but that by converting data into a visual format we can much more easily understand what the data is trying to tell us and draw conclusions from it a lot more easily. The “exercise” about this with the graph halfway through the presentation should ideally be a small “aha” moment in case they weren’t fully onboard yet. After that we will teach them how to take some data sets, structure them in Excel in a way that will make it readable in Tableau, and have them create some graphs with it themselves. The Excel to Tableau and the working in Tableau itself aren’t always the most straightforward, but if you follow the presentation step by step correctly everything will go well.

Learning objectives

- Gain an understanding of what “data” is
- The benefits of visual data and what things we can already understand by simply looking at a graph such as certain trends
- The benefits of a good graph, how it can grab people’s attention and make certain things easier to remember
- How to arrange data sets in Excel

- How to use Tableau and convert the data sets from an Excel file into graphs

Set-up instructions

- A laptop or PC
- An Excel account or program
- A Tableau account and program
- Access to the website where they can retrieve data used for the exercise:
<https://ec.europa.eu/eurostat/web/main/home>

Engage the students

The participants might quickly catch on to the idea of data and how it helps when it's visual, but getting that data in Tableau isn't always easy. Make sure they follow the step by step guide in the slides well, and that when it gets to the part where they drag the individual data sets to the rows and columns, that they do indeed put those data sets in the correct rows and columns. Guide them as best you can and if they follow the presentation correctly it will all work as intended.

Further resources

- Official Tableau website (Resources page): <https://www.tableau.com/resources>
- Tableau Tutorial: <https://www.simplilearn.com/tutorials/tableau-tutorial>