# Information Visualization

# CHECKPOINT I: Visualization Proposal

G15

**1. Domain**

One of the first things we are taught in school is how to read. And it is this knowledge that allows us to get most of the information in our lives. When learning, most of the time the way we gather the information we need is either through reading books, or in the present times, by reading articles on the internet and searching information through websites (i.e. Wikipedia).

Not only is reading important when studying, but also, when reading books in our daily lives, and this is because reading helps us develop skills that are important to our wellbeing. It helps to improve your self-expression capabilities since you are extending your vocabulary, it can teach you how to deal with certain obstacles you find in life or help you to learn a new skill.

Our aim is to understand how different these habits between different countries throughout Europe are, and if it has an impact on the high-academic achievement.

We hope that this visualization helps to understand how reading can affect our academic performance, and how it is important in our lives.

**2. Dataset**

The dataset used will consist in metrics with values related to the reading habits of the population, the levels of education attainment and academic success rates.

We’ll obtain the data required, through the following web providers:

* <https://ec.europa.eu/eurostat>
* <https://pordata.pt>

From these we can download most of the required data, although there is some data, we will have to retrieve from the web page itself. The file formats are not a problem since the providers have the download available in .csv and .xml files.

(Is the information incomplete??

* + - 1. **3. Example Questions**

1. - Try to provide a description that allows for the understanding of the questions and their complexity: this will be reflected on your grade.
2. - Question enunciation must be as clear and concrete as possible.
3. Below each question is a brief explanation with the tasks required by the user to answer the question.
4. How many hours, in average, do the countries in EU spend reading?
5. What is the average percentage of household expenditure in reading material by country?
6. Given the reading habits of each country, what is the level of literacy of this country comparing to other EU countries?
7. Given a country’s reading habits, what is the rate of dropout?
8. Is there a correlation between low habit of reading and the high academic success given a country?
9. What is the (under)achievement of students in reading, mathematics and science?
10. What is the adult participation in learning after leaving the formal education?
    * + 1. **4. Data Sample**

Some examples of data that show that the above are possible and adequate

(from “time\_spent\_reading\_books\_Data.csv”)

unit; geo; time; sex; value

time; Belgium; 2010; 4

(from “underachive\_reading\_math\_science.csv”)

year; training\_field; country; percentage

2012; Mathematics; Belgium; 19.6

(from “early\_leavers\_edu\_and\_training.csv”)

year; country; percentage

2014; Denmark; 9.5

(from “household\_exp\_books\_newspapers.csv”)

year; country; percentage\_of\_total(value)

2015; Ireland; 0.9

(from “xpto.csv”)

year; name; cost; rating

2012; Potatoes; 12000; 4