



Healthy habits in our Secondary School



1. Introduction

Every day we are surrounded by statistics. We only have to open a newspaper to realize that this discipline is used in several fields such as politics, economy, sports, health, etc.

We are going to investigate the habits in our school.

Do you want to learn about your school mates healthy habits? We will look into the sports and leisure habits of all the people who work or study at our center.

In the end, we will do a presentation with the final results.

2. Activity one

To measure the healthy lifestyle of the people who attend to this school, we must first define the statistical variables we are going to study. These are:

- *Your main sport.*
- *Hours spent each week watching TV.*
- *Hours you spend doing sports weekly.*
- *Body Mass Index:* For this variable we have to ask the height and weight and calculate each one on the spreadsheet.

You have to prepare the questionnaire with what you are going to ask people. Remember that the surveys are confidential and you cannot write the name of the person who is answering your questions.

Each group will be assigned a course to pass the survey.

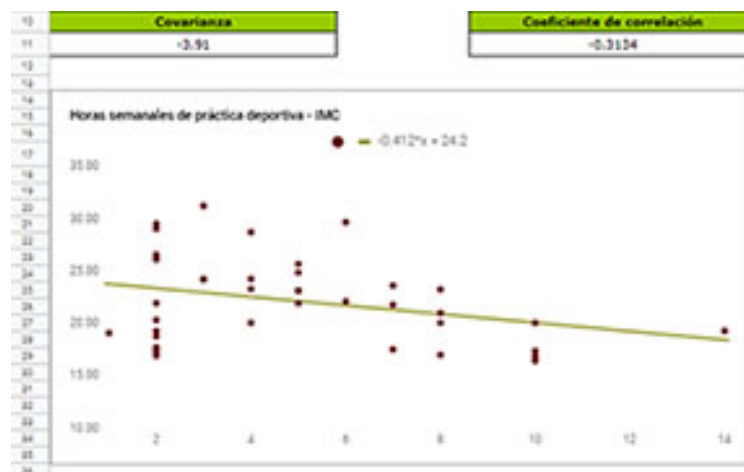


Figura 1

3. Activity two

- *Data counting:* Once the interviews are done, proceed to count data. The results of the count data, have to be written on the spreadsheet that I present below.
- *Data interpretation:* Once the full statistical study is done, you will have to interpret the data and draw conclusions. You also have to answer the following question in a comprehensive manner: *"What can we do to improve our health?"*

4. Activity three

We show the results of the collected data. In figures 1 and 2 it is shown that, for instance, in 4º of ESO, the correlation coefficient between the number of weekly TV hours and the Body Mass Index is practically zero, as well as with the weight. This result is the same for all the grades in ESO, what makes us think in the absence of relation between the variables. We can think that although sport allows us to be healthier it also make us win muscular mass. The full statistics studies can be found in the following spreadsheets, designed by the teacher and used by the students.

1º ESO	2º ESO	3º ESO	4º ESO y comparativa
------------------------	------------------------	------------------------	--------------------------------------

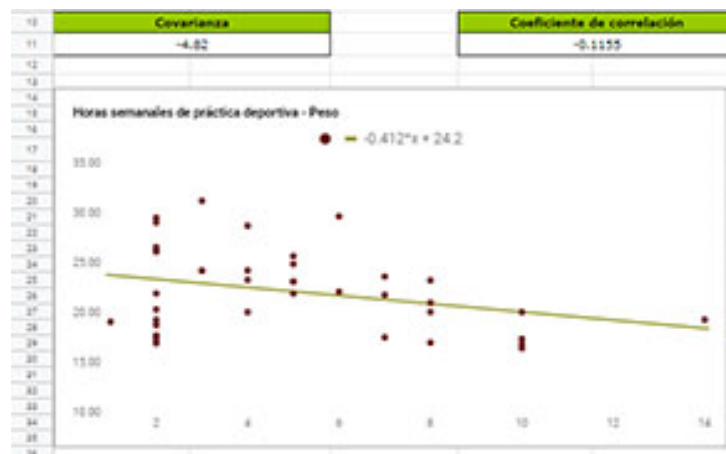


Figure 2

When we establish the weekly TV hours as variable, the results are more significant, above all with weight. In the four grades the correlation coefficient are positive and they clearly grow from 1º to 4º. Let's have a look at the charts in the figures 3, 4, 5 and 6. By clicking on each image you have access to the detailed spreadsheets.

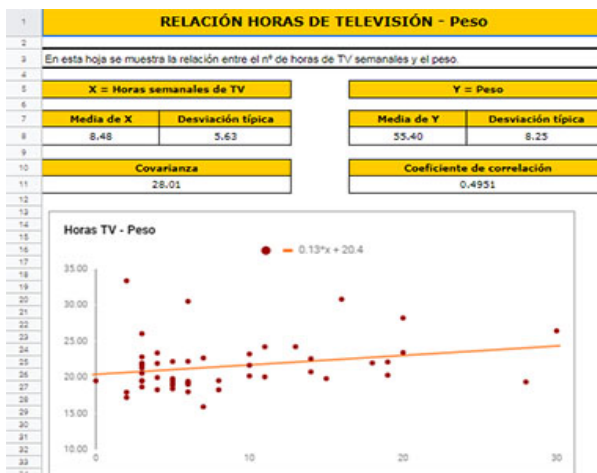


Figure 3

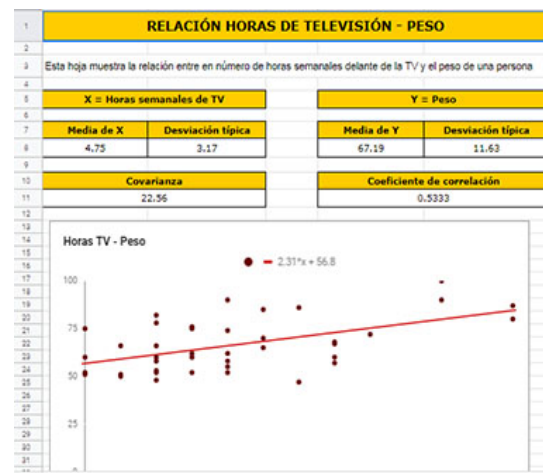


Figure 4

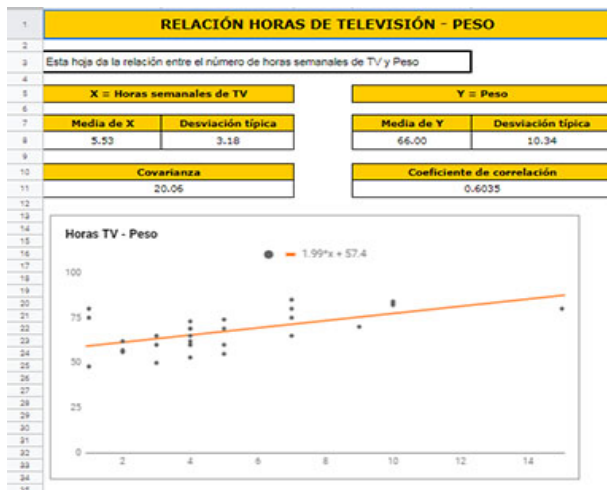


Figure 5

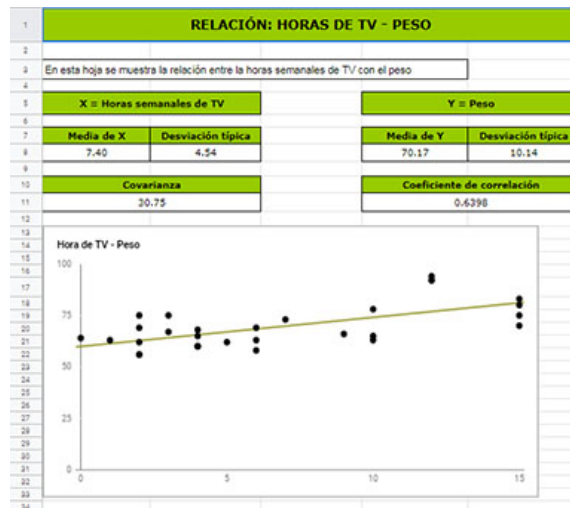


Figure 6

4. Activity four

Each group will perform a presentation which will discuss the progress of work, the data collected, their interpretation as well as the answer to the final question posed. These conclusions have to be written in a presentation and sent by email to the teacher before the exhibition. The presentation will have graphics from spreadsheet and explanations based on the results obtained.

5. Activity five (teacher)

After the exhibition all data from all groups will be gathered, the relevant statistical study will be done, and all the conclusions reached in all groups will be gathered. In the spreadsheet number 4 we can see the correlation previously mentioned. It can be seen that the correlation rises with age, although it is not rather significant. Go to figure 7.





Figure 7

Autoría:

Claudio Martínez Gil: claudio.martinez.gil@gmail.com

Águeda Chivite Martínez: achivite@educacion.navarra.es

References

- *12 Habits of Super-Healthy People*: <https://www.webmd.com/fitness-exercise/ss/twelve-habits-super-healthy-people>
- *The Benefits of Healthy Habits*: <https://www.healthline.com/health/5-benefits-healthy-habits>
- *Lista de funciones de Hojas de cálculo de Google*: <https://support.google.com/docs/table/25273>