

# Introducing Interactive Statistics for teaching statistics to students of General Basic Education (EGB) in Argentina.

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## 1. Summary

This paper shows my experience in teaching statistics to students using “Interactive Statistics” and how pupils knowledge evolves with this method being more creative and with a great development of the critic spirit so necessary in daily life.

**Central idea:** “Statistics and Probability”

**Problem:** Develop the critic spirit in pupils through Statistics.

**Linking with other areas**

Language – Social Sciences – Natural and Decimal Numbers – Percentage – Tables – Graphics – diagrams – Plots – Polls – Questionnaires – Information – Mediums of Communication – Mathematics – Natural Sciences.

**Attitude’s Contents**

- Independence and autonomy of the thought.
- Critic and responsible attitude with the use of information.
- Curiosity and opening in relation with concepts and procedures which pupils operate with.
- Assessment with the contribution of Mathematics contents to the different situations of the every day life.

**Didactic objectives**

- Collect, organize, interpret and report the statistic information, understand situations of the daily life, using different representations.
- Discuss and value the statistic information obtained of the mediums of communication for taking decisions.
- Calculate the probability of simple events.

**Evaluation**

What? \_\_\_\_\_ Achievements on the apprenticeship → Objectives

How? \_\_\_\_\_ Watching records → Analysis and interpretation of the new contents

When? \_\_\_\_\_ During the process → Constantly of apprenticeship

**Forms of working**

- Groups of three pupils

After presenting the way of working with this didactic unit. I will show through pupils’ activities the way of teaching statistics proposed.

First, I made a diagnosis of the course to plan the activities in function of the characteristics of the group.

And now I will present as an example some activities I propose for 6<sup>th</sup> year of the EGB (eleven years of age).

I begin by asking to:

- Talk about what you think what is statistic, on what statistics pay attention to, how we do statistics, where can we find statistic information.
- Give examples taken from every day life where statistics is applied.
- Talk about questionnaires, how we obtained the information of a questionnaire, how the final results are obtained, how the conclusions are taken, who work on this task.
- Talk about who are the persons that use the results of a questionnaire and what they use them for?

Then I present **activity N° 1**, for example:

#### Orders

- Get together in groups of three pupils.
- Look for data and information in newspapers and magazines.
- Cut and stick in the folders of Statistic.
- Analyze the information with the other groups.

It is important to observe how pupils through the searching of information are connected with statistical concepts and how with the teacher's guide they emphasize the importance of Statistic in every day life.

During the course of my presentation I will present the development of these activities and other more as examples of this way of giving classes.

Pupils think, then about Statistics terminology and then we give them the definitions that they have already prepared with the activities.

Phrases like:

- *Let's do it*
- *Think about it*
- *Examples*
- *Definitions*

Are usually presented in the notes given to pupils.

Descriptive Statistics is presented with examples of data that is necessary to summarize and organize in order to get information from data given.

And then, the theory is given to reinforce the definitions that pupils prepare after working in class I will show the activities done by pupils where you can see how pupils begin to learn Statistics using "Interactive Statistics".

As Martha Aliaga says: "to value Statistics the student's experience must bring them to believe that statistic has value for them".

I have very good results using this method.

I begin to introduce it, after Martha Aliaga gave this course of Interactive Statistics in the Faculty of Economic Sciences and Statistics in Rosario, Argentina, and I think after one year of teaching this way, that my pupils have changed. They realize that having critic spirit that is developed by using this method, they can solve lots of situations that appear in every day life and in fact this is the best we can teach: to prepare pupils to solve any king of situations in their lives.

#### RÉSUMÉ

Cette contribution porte sur mon experience de l'enseignement de la statistique aux élèves en utilisant "Statistique interactive" et comment la connaissance de ces écoliers se développe avec cette méthode, avec des tendances plus créatives et un très fort esprit critique si nécessaire dans la vie quotidienne.

#### Bibliography

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