

# What and how to teach statistics to non statisticians in a developing country

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## 1. Introduction

The purpose of this paper is to show some results of the application of an interactive method of teaching statistics and what, and how to teach statistics in careers such as accountant, business administration, marketing, international foreign commerce, and so on.

One of the problems we found is that these courses are given just in one semester of the academic year, and we have a two hour meeting each week. We have large courses and this is a subject that is in most careers of the third year, so we receive students "totally structured" to the traditional way of learning.

And we also have to face some of the following difficulties or resistance:

- to the change of the methodology
- to the integration to work in group
- to search problems with real and daily data to work with them in an active way.

On the other hand, as we are a developing country the technological advance is not so fast as it would be desirable.

## 2. Some results to be considered as successful

- Our students already bring them data to work on it.
- They always work in group with no problem.
- We have improved the teaching of Statistics by applying an interactive method.
- Our students started to understand the usefulness of the statistical analysis as a help to solve real problems and overall, how the good treatment of data helps in making decisions.
- Some numbers to take in account:

Condition of students at the end of the 1<sup>st</sup>.semester by career in a private  
University,  
After applying the Interactive Method  
Rosario, Argentina -2000

CAREER	CONDITION				TOTAL	
	REGULAR		NOT REGU.			
	N°	%	N°	%	N°	%
C.P.N.	40	58,8	28	41,2	68	100
B.B.A.	38	59,4	26	40,6	64	100
TOTAL	78	59,1	54	40,9	132	100

Fuente: Sección alumnado- Universidad Rosario- Argentina

**T 1.2.**

**Condition of students at the end of the 2<sup>nd</sup> semester, by career in a private University after  
applying the traditional method  
Rosario. Argentina, 2000**

CAREER	CONDITION				TOTAL	
	REGULARS		NOT REGULARS			
	N°	%	N°	%	N°	%
C.P.N.	12	26,1	34	73,9	46	100
B.B.A.	19	30,6	43	69,4	62	100
TOTAL	31	28,7	77	71,3	108	100

Fuente: Sección alumnado- Universidad Privada- Rosario- Argentina

C.P.N. : Accountant B.B.A.:Bac.Bussiness Administration

From Table 1.1 we can conclude that:

- a) 58,8% of the C.P.N. career, that received the interactive method, finished the semester as regular students, and
- b) 59,4% of the students of B.B.A. that received the interactive method, arrived to final exam as regular students.

From Table 1.2 we can conclude that :

- a) only the 26,1% of C.P.N. students ended the semester as regular students and
- b) just the 30,6% of B.B.A. students finished in the same condition when the traditional method was applied.

### **3. Conclusions**

We still teach some subjects with the traditional method, but we have improved a lot using this new method, specially to teach tests of hypothesis and other inferential methods, and , of course we have improved in saving much time teaching descriptive statistics with the interactive method.

We are trying with the authorities that with the change of programs, Statistics courses to be extended to one academic year, this will be another big success for us and for the teaching of Statistics to non Statisticians in a developing country

### **REFERENCE**

Aliaga Martha -University of Michigan (1998) Interactive Statistics. Preliminary Edition .Prentice Hall Ed.

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### **RESUME**

On essaie de transmettre l'expérience dans l'application d'une nouvelle méthode pour l'enseignement de la Statistique dans quelques cours universitaires. On a l'intention de changer la méthode traditionnelle pour une méthode d'apprentissage active pour améliorer la qualité de l'enseignement de la Statistique.

## **REFERENCE**

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## **RESUME**

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