

# The Success of the students: A study based on test results

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## ABSTRACT

The predictive value that data has, will allows us to predict the possibility to succeed of a student, based on their chosen career, and the success he had on the ICFES tests. For that with usage of decision trees, and different strategies to keep the information short and understandable

## Keywords

Students, prediction, ICFES, trees.

## 1. INTRODUCTION

Trying to gauge the possibility of success of recently graduated students is a task that could bear great fruits, as it gives an edge on the knowledge of the possible careers that the student should take. Of course, measurement of such things should be supported by other studies. And thus, this group has searched for different problems that bear 4 similar processes, and their respective solutions, to give ourselves a proper baseline to start developing the program that would allow us to accomplish our objectives.

### 1.1 Problem 1

[1] The first problem to solve was the prediction of the behavior of the vote based on personality and sociopolitical elements. By itself is a hard problem due to the different interpretations that the data of the results could give.

#### 1.1.1 Solution

The solution given was divide the results into three different variables. The first a sociological one, the second a psychological one, and the third a political. Read each value and see who they voted for. If anyone with the same parameters appears then the prediction is done.

### 1.1.2 Graph of the Solution

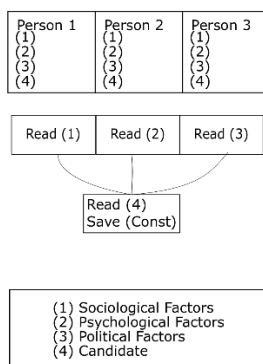


Image 1. The graph

### 1.2 Problem 2

[2] The second problem is making a prediction model of the satisfaction with the school and physical education. That is because of the relation that the school satisfaction is related to either things like depression, or scholar desertion. On the other hand, it is also related to the social interactions, the stress levels, and the academic performance.

#### 1.2.1 Solution

The solution was given by the usage of several preexisting measurement units to classify, and organize the answers given, and then by using some formulas that are related to the aforementioned measurement units.

#### 1.2.2 Graph

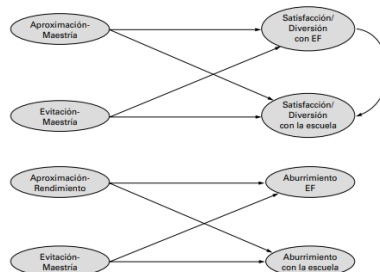


Image 2. The Measurements used, and their structure

### 1.3 Problem 3

[3] The third problem is establishing a deeper relation between economics, and the crime. Because of their long-time relationship, it allows us to have a deeper understanding of the crime workings. Also, it allows to see a better picture for possibilities. Like who

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could fall easier to crime or end up dealing with illegal procedures.

### 1.3.1 Solution

The solution is using several criteria to reunite what makes crime and economy so close, and then seeing what relation it has with the real life.

### 1.3.2 Graphic

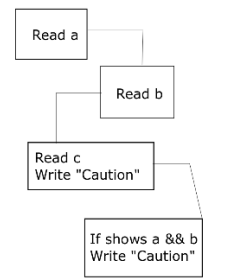


Image 3. Graphic of the solution

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