

Project Abstract – Social and Educational Impacts on Student Performance

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<https://archive.ics.uci.edu/ml/datasets/Student+Performance>

Objective: To observe the social and educational impacts on student performance in math and Portuguese classes.

Background: There are two datasets that represent students enrolled in math and Portuguese classes. Each student were surveyed and evaluated on multiple social and school-related factors and all grades throughout the term were recorded, final grades are included.

Problem: Identify the social and school-related factors that negatively impact student performance, which factors are significant? What are the causes of poor performance in school?

Method: Various forms of exploratory analysis will be performed. Based on the dataset, I will determine the students who have performed lower than average in comparison to other students taking the same course. I will identify the attributes that have strong correlation with the students' grades by performing visual, regression and classification analysis.

Results: Romantic and G1 (initial grades) were the cause of students' performance.

Conclusion: Based on the dataset provided, the results are realistic. However, some improvements can be made to the data such as quantity of research as well as a specific focus so attributes are related.

Application: I will be using R programming, specifically done on RStudio.