**STATISTICAL ANALYSIS PLAN**

**Aim of Study**

* The aim of this study is to determine significant factors that influence the grades of students in secondary education in two Portuguese schools utilizing analysis of variance methods.
* Describe how academic performance is influenced by several of the following factors:
  + Mother’s Profession
  + Number of Previously Failed Classes
  + {Dennis Variables}

**Research Questions**

Amongst students within secondary education in two Portuguese schools:

1. Is there a significant difference in the average final grade between students’ with varying mother’s profession?
2. Is there a significant difference in the average final grade between students who have failed varying numbers of previous classes?

**Dataset**

Two datasets are present in this analysis. One in which returns students’ final mathematics grade, and another which includes students Portuguese Language grade. Both datasets include observations from two schools, collected via school reports and questionnaires. The following variables are included in both datasets also:

* school
* sex
* age
* address
* famsize
* Pstatus
* Medu
* Fedu
* Mjob
* Fjob
* reason
* guardian
* traveltime
* studytime
* failures
* schoolsup
* famsup
* paid
* activities
* nursery
* higher
* internet
* romantic
* famrel
* freetime
* goout
* Dalc
* Walc
* health
* absences
* G1
* G2
* G3

**Analysis**