

**ANLY482 – Analytics Practicum**

**Project Proposal**

**Group 15 - Edufy**

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# Overview

For many Secondary 2 students in Singapore, choosing and selecting a subject combination for the next two years leading to their GCE 'O' Levels Examinations can be a tough decision. It is sometimes difficult for teachers to decide whether to encourage or allow students with borderline grades to take on the subject combination of combined science or double science. Often, many parents want and believe that their children are qualified to take on double science combination (or even triple science). Without any analytical evidence, it makes it difficult for teachers to convince parents that the recommended or proposed combination would be the better choice for their child.

# Team Introduction

We are Team Edufy. Our team consist of:

1. Heng Kok Chin. Year 4 student from School of Information Systems. 2nd major in Analytics.
2. Peh Zhan Hao. Year 4 student from Lee Kong Chian School of Business. 2nd major in Analytics.
3. Tan Yong Kiong. Year 4 student from Lee Kong Chian School of Business. 2nd major in Analytics. Proficient in Tableau, JMP Pro, SAS Enterprise Miner, D3.js. Basic in Python.

# Sponsor Background

Our project sponsor, Edgefield Secondary School (ESS), is a neighbourhood secondary school located in the East in Singapore. Established in 2010, ESS is located at the North-East region of Singapore to provide quality education to students living around the estate. Equipped with the newest facilities and the latest technologies coupled with curriculum innovation, the school is committed to provide the ideal learning environment and experiences for its students. It is currently in the process of setting up a Data Analytics Team to tackle educational problems faced by teachers and students.

# Sponsor & Liaison Information

|  |  |  |
| --- | --- | --- |
| Name | Position | Contact Information |
| Mr Lee Peck Ping | Principal, Edgefield Secondary School | 6883 9511  [LEE\_Peck\_Ping@schools.gov.sg](mailto:LEE_Peck_Ping@schools.gov.sg) |
| Mrs Wong Puay Kheng | Vice-Principal, Edgefield Secondary School | 6883 9511  [LIM\_Puay\_Kheng@schools.gov.sg](mailto:LIM_Puay_Kheng@schools.gov.sg) |

# Project Background & Motivation

PSLE and ‘O’ Levels are major examinations in every student’s education life in Singapore. The exams will heavily determine the paths that are available to students in the future. Choosing a subject combination for ‘O’ Levels will subsequently affect the future career paths of a student, be it whether the students ends up entering into a Polytechnic or a Junior College. For example, if a student wants to study Pure Biology in a Junior College in the future, studying either Pure Biology or Combined Biology for ‘O’ Levels is necessary. Also, to take into account that there is a lower entry requirement for pure science as compared to combined science (e.g. to study Biology in Junior College, you might need to just pass Pure Biology in ‘O’ Levels, but maybe at least a B4 for Combined Biology in ‘O’ Levels).

We want to come up with an analysis that will help the parents and students in choosing a subject that is both manageable (considering the student’s capability) and desirable (for the future of the student). We want to avoid the regret later where a student’s future path is limited by his/her poor subject combination back in ‘O’ Levels.

# Project Objectives

Utilizing past data of students’ grades from the school’s database, we would like to discover useful and practical insights which will allow teachers to better decide and advise students on choosing their Secondary 2 subject combination, particularly on whether they should take combined science or double science. We will attempt to analyze the trends of students' academic performance by examining their past subject grades and subject combinations.

To achieve the above mentioned, we will perform an in-depth analysis on the historical data with the following aims:

1. To help the parents and students in choosing a subject combination that is manageable by considering the students' capability
2. To assist in choosing a combination that is desirable for the future of the student
3. To analyse impact that Literature has on student’s academic performance, since Literature is a compulsory subject in the school’s curriculum

# Data Collection & Description

# Scope of Project

# Proposed Methodology

# Recommendations & Insights

# Stakeholders

The main stakeholders of this project include:

* Project Supervisor
  + Prof Kam Tin Seong, Associate Professor of Information Systems; Senior Advisor, SIS (Programme in Analytics)
* Sponsor
  + Mr Lee Peck Ping, Principal of Edgefield Secondary School (ESS)
  + Mdm Lim, Vice-Principal of ESS
* Students of ESS
* Teachers and Heads of Department (HODs) of ESS
* Parents of students studying in ESS

# Project Management



# Deliverables

The final deliverables of this project are as following:

* Project Proposal
* Mid-term Report
* Mid-term Presentation
* Final Report
* Final Presentation
* Project Wiki Page
* Project Poster
* Recommendations to Sponsor

# References

**There are no sources in the current document.**