

# Singapore Management University

## ANLY482 Analytics Practicum

Sponsor Meeting Minutes 2 as on 10<sup>th</sup> January 2017

Time Start:	1.00pm
Time End:	2.30pm
Location:	Edgefield Secondary School
Recorded by:	Heng Kok Chin
Vetted By:	Tan Yong Kiong, Alson

Attendees:	
Mr Lee Peck Ping Mrs Wong Puay Kheng Mdm Candice Ngau Shu Mei Heng Kok Chin Tan Yong Kiong, Alson	Principal, Edgefield Secondary School Vice-Principal, Edgefield Secondary School Head of Department (Mathematics), Edgefield Secondary School Undergraduate, Singapore Management University Undergraduate, Singapore Management University
Absent with Apologies:	
Peh Zhan Hao	Undergraduate, Singapore Management University

### Agenda

#### Discuss the requirements for the dataset

1. Student ID (coded)
2. Students' examination grades for all subjects (4 years of data) and their individual subject grades (for CA and SA)
3. O Level & N Level scores
4. Students' Subject Combination (Pure sciences versus. Combined sciences)
5. Students' Class (Express versus. Normal)
6. PSLE scores

#### Clarifications

1. Exact criteria in deciding whether to award a student double science or combined science combination
2. Is this a school or MOE guideline?
3. NDA

No.	Discussion:	Action by:	Deadline:
A	<b>Initial confusion between the objective of this project:</b>		
	<ul style="list-style-type: none"> <li>• Our team initially thought that it was making better subject combinations between pure sciences (double and triple pure sciences) or combined sciences</li> <li>• However, the Vice-Principal had the impression that it was between triple pure sciences and double pure sciences as the rationale was that many parents will push their children to take triple sciences and if their children couldn't make it, double sciences were the other option</li> </ul>		

1	<p>Eventually, after clarifying with the Principal, he mentioned that the basis of this problem is streaming the students entering Secondary 2 into combined, double or triple sciences. How to better inform them, using predictors to make better decisions and whether they should be allowed to take pure sciences or combined sciences. The focus is on the distinction between pure sciences or combined sciences but analysing double sciences or triple sciences will of course be a bonus.</p> <ul style="list-style-type: none"> <li>• Every year, there are about 10-20 students who are making the appeal to go to pure sciences when they didn't make the requirements set out by the school</li> <li>• It is very hard for the school to decide who should be allowed to take pure sciences based on "feelings"</li> <li>• Students can have high aggregate score but low mathematics/science scores (how to see which is a better predictor)</li> <li>• The Principal mentioned about looking at what are the predictors that they can refer to before they decide if they want to push this student to pure sciences instead of combined sciences</li> <li>• Can see it as an overall score as well as by individual subjects (example of English Literature &amp; Science versus Mathematics &amp; Science)</li> <li>• A student currently taking pure sciences might have performed better in O Level if they have taken combined sciences instead</li> </ul>		
2	<p>Clarified the requirements of the data with the Principal &amp; Vice-Principal:</p> <ul style="list-style-type: none"> <li>• Only data from express stream will be given to us</li> <li>• Only data from the 3 cohorts that graduated ('14, '15, '16) and four years from each cohort will be given to us</li> <li>• Student ID will be encoded to ensure confidentiality</li> <li>• O Level scores and PSLE scores will be given as well</li> <li>• Use the data to benchmark against the L1B5 score at the end of 4 years</li> </ul>		

<b>B</b>	<b>Criteria in selecting students for various science combinations</b>			
	Triple Pure Sciences	Double Pure Sciences	Single Pure Science + Combined Sciences	Combined Sciences
	<ul style="list-style-type: none"> <li>- Top 45 in the level</li> <li>- Mathematics &amp; Science scores <math>\geq</math> 70%</li> </ul>	<ul style="list-style-type: none"> <li>- Top 110 in the level</li> <li>- Mathematics &amp; Science scores <math>\geq</math> 67%</li> </ul>	<ul style="list-style-type: none"> <li>- Mathematics &amp; Science scores possibly around <math>\geq</math> 60 - 65%</li> </ul>	<ul style="list-style-type: none"> <li>- the rest</li> </ul>

1	<p>The actual criteria might adjust up or down, based on the number of students meeting the requirements.</p> <p>On average, there are about:</p> <ul style="list-style-type: none"> <li>- 0.5 – 1 class of triple sciences students</li> <li>- 1.5 classes of double sciences students</li> <li>- 1 – 1.5 classes of single pure sciences + combined sciences students</li> <li>- 2 – 2.5 classes of combined sciences students</li> </ul> <p>This is also a guideline set by the school itself. One problem the school faced is the communication of criteria to the students on whether overall score is used or individual science scores are used in deciding the science</p>		
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	combinations. If it is made known to the students that individual science scores are used, students will focus on scoring well for their sciences and neglect other subjects. Their overall might not be good but their individual science scores qualify for the requirements. How to weigh between these?		
<b>C</b>	<b>NDA</b>		
1	Showed the NDA briefly to the Principal & Vice-Principal. The Principal requested that we send the NDA to them for further viewing.		
<b>D</b>	<b>Action Items</b>		
	<ol style="list-style-type: none"> <li>1. To send the NDA to the Principal and Vice-Principal for them to look through</li> <li>2. Request from the Principal to have no identification of fields leading back to the school (ensure that this is adhered to)</li> <li>3. Obtain data from the school</li> </ol>	Edufy & ESS Edufy & ESS Edufy & ESS	14 Jan 2017 (Sat) 14 Jan 2017 (Sat) 14 Jan 2017 (Sat)