Module 4 Challenge – Written Report

# Introduction: Purpose of Analysis

For my local government area, I am tasked to assist the school board and mayor to devise strategic decisions regarding school budgets and priorities. Area-wide dataset of standardised reading & maths test results, as well as other information of the schools that students attend to, have been supplied to me. The data has been aggregated to display obvious trends in school performance.

# Section #1: Analysis Summary

From the provided population data, the following are observed for the local government area:

* There are a total of 15 schools with 39,170 students
* Of the 15 schools, 7 are ‘Government’ and 8 are ‘Independent’
* Over $24.6 million (or $24,649,428) was spent across all schools
* Collectively, the majority of students (72.81%) passed both the maths and reading tests
* Collectively, the average maths score (70.34) is higher than the average reading score (69.98)
* The top performing school (based on % Overall Passing) is Griffin High School (81.34%)
* The least performing school (based on % Overall Passing) is Hernandez High School (66.36%)
* The minimum budget per student is $578.00 and the maximum is $655.00

# Section #2: Conclusions / Comparisons Drawn from Analysis

From the aggregated data, there are more students overall passing both tests when:

* Budget allocated per student is between $585.00 to $630.00 (79.88%)
* Students belong in schools where the size is less than 1000 (79.07%)
* Students attending ‘Independent Schools’ (76.97%)

This suggests that the ideal school, where students are more likely to pass their examination, is one that meets the above criteria.

Based on % Overall Passing, the majority of the top 5 performing schools are ‘Independent’. In contrast, the majority of the bottom 5 performing schools are ‘Government’. The data also shows that students overall passing both tests in ‘Independent’ schools (76.97%) is higher than students attending in ‘Government’ schools (70.69%). From this, I can interpret that students are more likely to excel in overall performance when attending ‘Independent’ schools and less so when they attend ‘Government’ schools instead.