



NCCD Students with Disability Correlation

Identifying those students who might need additional support



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PROBLEM

éxposé was involved in a project where the client wanted to see if there was a way to identify those students who might need additional support based on their profile being similar to those already on an assistance program with the goal of identifying and helping these students early increasing the likelihood of successful schooling.

Currently students only get classified as needing NCCD support when it is evident to a teacher and specific supporting evidence is collected to meet government criteria. Not all students go through this process so the hypothesis is that of the students who are classified as not NCCD there may be some who should be.

Students and school datasets come from various data sources unique to each school. Gathering and joining data across systems and schools can prove challenging.

SOLUTION

Various datasets across a students academic and wellbeing profile from many schools' disparate data sources were collected and aggregated with historical comparisons and trends calculated.

Data about NAPLAN, attendance, wellbeing surveys, PAT testing and academic grades were collected as potential data points. These aggregations, trends and indicators were then used by a collaborator to conduct a machine learning based feature analysis.

Unsupervised learning was used to create groupings between the NCCD levels of support, NAPLAN results and attendance.

Through this analysis a skew to lower overall scores and attendance was identified with the higher level of support a student was on. Projecting this on to the non classified students we could determine an eligibility score for the NCCD team to investigate some of the most stand out cases.

BUSINESS BENEFITS

The client was able to determine if there was a correlation between NAPLAN, Attendance and NCCD students.

The client was provided a list of students who could be considered for NCCD support by schools with assistance from the NCCD team.

The client now has a framework for testing correlations to other features such as grades, wellbeing surveys etc.