

General End User Guide
8.2.20 External Results → Assessment Analysis



TrackOne
S T U D I O

This document will assist you in navigating through the Learning Analytics Suite as both an Administrator, and as a set user type with fewer permissions enabled in their setup, ie. Staff or Student. Please carefully review all instructions set out in the Help Documentation made available.

If you require further expansion or assistance at any point in the document, please do not hesitate to contact TrackOne Studio Support through the Help Desk by sending an email to helpdesk@trackonestudio.com.

Assessment Analysis

Assessment Analysis allows for deeper analysis of the school's external results.

The screenshot displays the TrackOne Studio Learning Analytics Suite interface. On the left is a dark blue sidebar with a 'Analytics' header and a 'Go to Administration' link. Below this are icons and labels for various sections: Home, Student Results, Class Results, Class Tools, Data Entry, Subject Results, Cohort Results, Pastoral Care, External Results (with a sub-menu), and Reports. The 'External Results' sub-menu is expanded, showing 'Assessment Results', 'Assessment Analysis' (highlighted), and 'NAPLAN Analysis'. The main content area is titled 'Demonstration School Learning Analytics Suite' and features a top navigation bar with 'Performance Progress', 'Cohort Performance Over Time', and 'Academic Comparison'. Below this is a 'Performance Progress' section with a 'Select Student Group' filter (Cohort: Year 12, Sem 1, 2020; Filter by subject enrolment: All Students) and a 'Select External Assessment' section (Provider: NAPLAN, Section: Spelling). There are also expandable sections for 'Additional Filter Options' (currently showing 'No filters selected.') and 'Additional Report Options'. A 'Create Report' button is located at the bottom of the main content area.

Analytics
[Go to Administration](#)

- Home
- Student Results
- Class Results
- Class Tools
- Data Entry
- Subject Results
- Cohort Results
- Pastoral Care
- External Results
 - Assessment Results
 - Assessment Analysis**
 - NAPLAN Analysis
 - OP Analysis
 - Predictive Analysis
- Reports

Demonstration School Learning Analytics Suite

► Performance Progress ► Cohort Performance Over Time ► Academic Comparison

Performance Progress

Select Student Group

Cohort: Year 12 Sem 1, 2020 Filter by subject enrolment: All Students

Select External Assessment

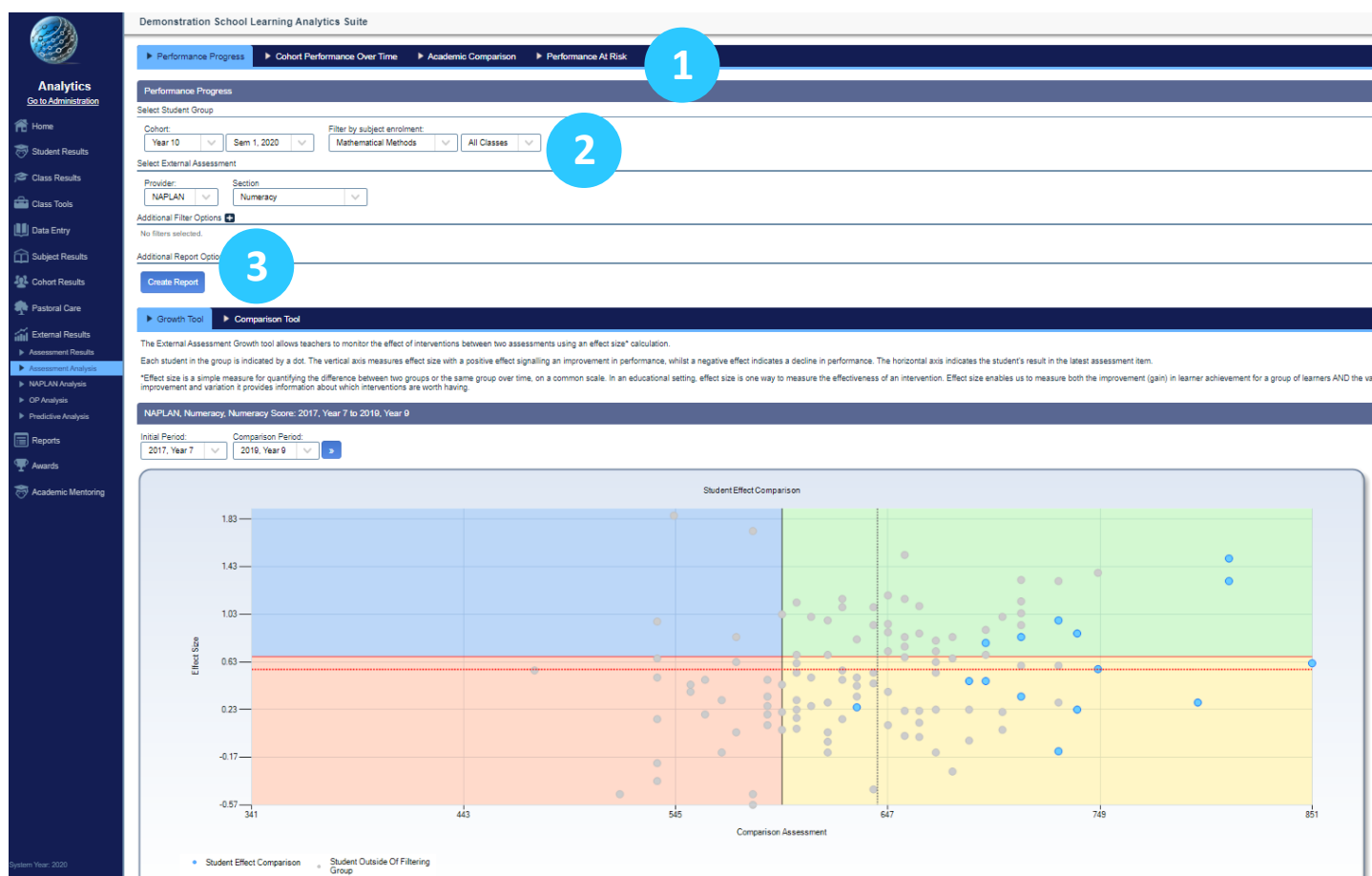
Provider: NAPLAN Section: Spelling

Additional Filter Options +
No filters selected.

Additional Report Options +

Create Report

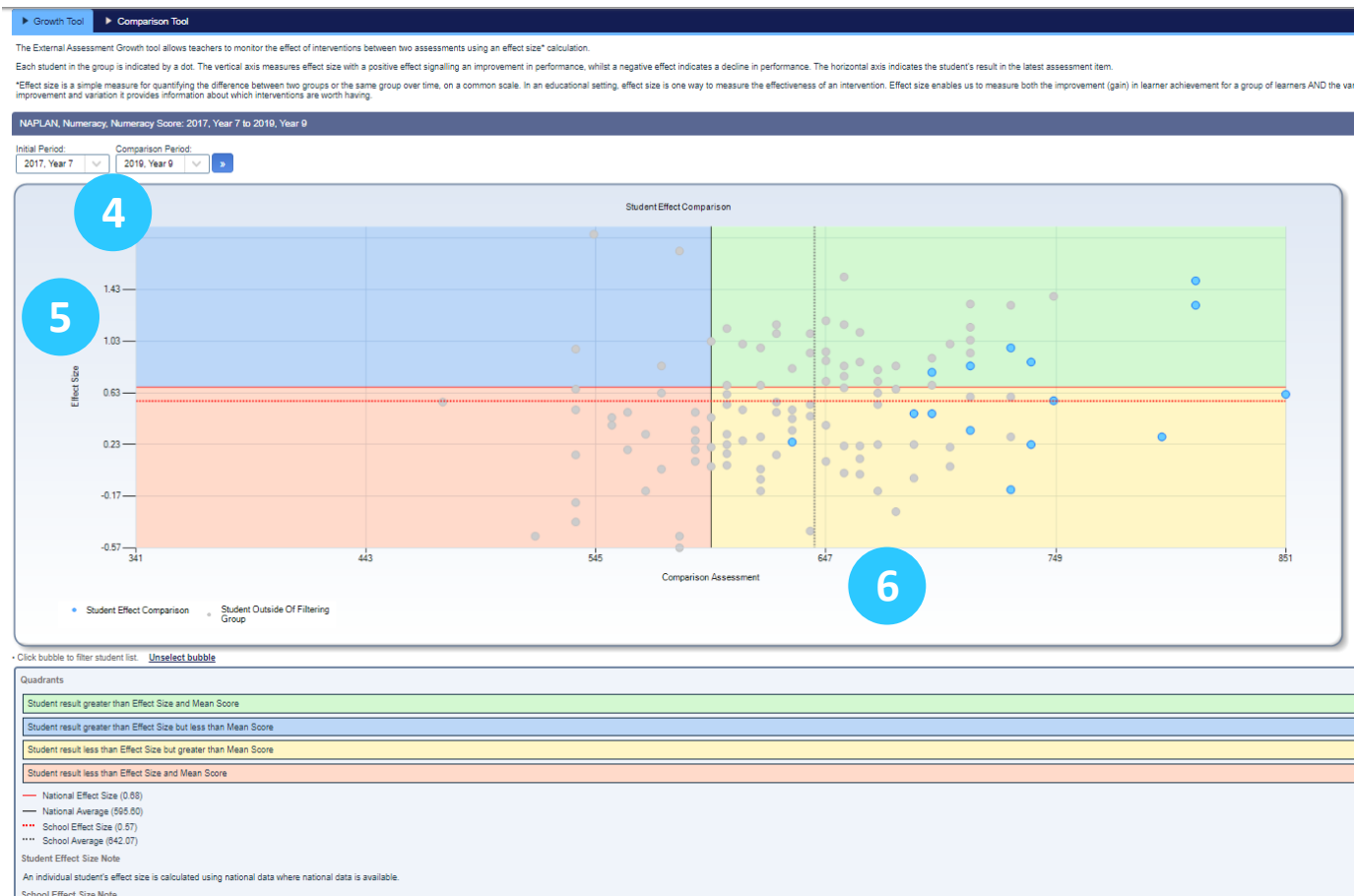
Performance Progress – Growth Tool



1. The blue menu bar enables the user to move between the areas within **Assessment Analysis**. The pages will refresh as the user moves between tabs (meaning the assessment item will not stay the same). The first tab looks at **Performance Progress**, which indicates the degree to which students have improved from one assessment item to the next.
2. Select the cohort, result period and subject for analysis.
For instance, Year 10 → Semester One, 2020 → Mathematical Methods.

Select the provider, section and data type.
For instance, NAPLAN → Numeracy → Numeracy Score.

In this example, the user is looking at the Year 10s of Semester One, 2020 (who studied Mathematical Methods). They are analysing the degree to which these students' Numeracy scores improved over time.
3. Click **Create Report**.



4. The drop-down menus above the chart indicate the initial and latest assessment item being used to measure improvement.
In the example shown:
 - The initial assessment item is their Year 7 test (which they sat in 2017); and
 - The latest assessment item is their Year 9 test (which they sat in 2019).
5. The vertical axis measures effect size (improvement from one test to the next). A positive effect size signals improvement in performance, whilst a negative result shows decline.
(For additional information on the effect size calculation, please contact TrackOne Studio).
 - The solid red line shows the average effect size (at the national level).
 - The dotted red line shows the average effect size (at the school's level).
6. The horizontal axis indicates the student's result on the latest assessment item.
In the example shown, this would be the student's Year 9 Numeracy scale score.
 - The solid black line shows the average scale score (at the national level).
 - The dotted black line shows the average scale score (at the school's level).

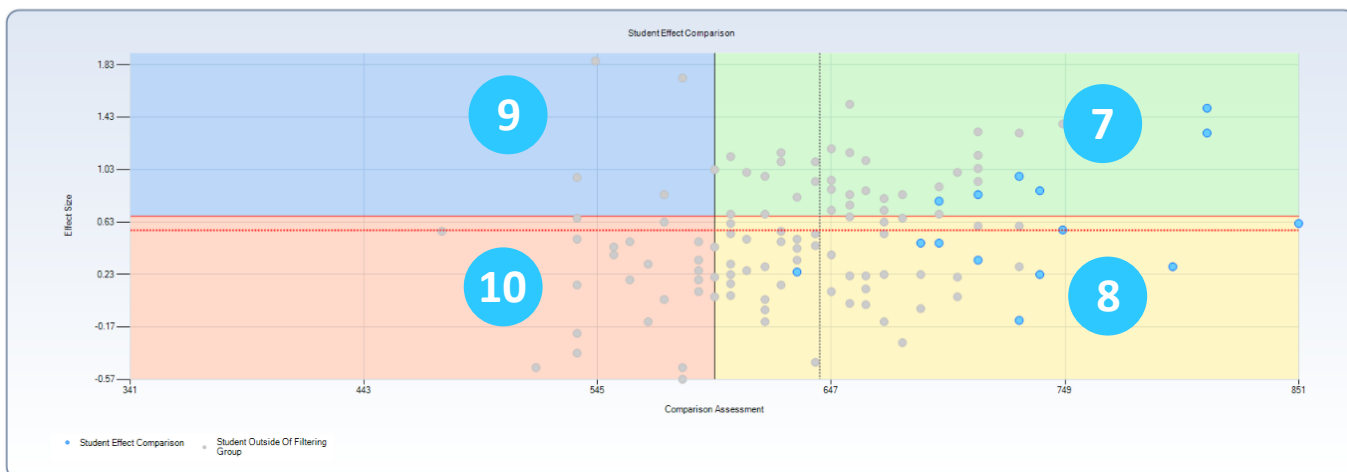
The External Assessment Growth tool allows teachers to monitor the effect of interventions between two assessments using an effect size* calculation.

Each student in the group is indicated by a dot. The vertical axis measures effect size with a positive effect signalling an improvement in performance, whilst a negative effect indicates a decline in performance. The horizontal axis indicates the student's result in the latest assessment item.

*Effect size is a simple measure for quantifying the difference between two groups or the same group over time, on a common scale. In an educational setting, effect size is one way to measure the effectiveness of an intervention. Effect size enables us to measure both the improvement (gain) in learner achievement for a group of learners AND the variance in learner achievement between two groups.

NAPLAN, Numeracy, Numeracy Score: 2017, Year 7 to 2019, Year 9

Initial Period: 2017, Year 7
Comparison Period: 2019, Year 9



Click bubble to filter student list: [Unselect bubble](#)

Quadrants
Student result greater than Effect Size and Mean Score
Student result greater than Effect Size but less than Mean Score
Student result less than Effect Size but greater than Mean Score
Student result less than Effect Size and Mean Score

— National Effect Size (0.08)
 — National Average (595.00)
 - - - School Effect Size (0.07)
 - - - School Average (642.07)

Student Effect Size Note
 An individual student's effect size is calculated using national data where national data is available.
 School Effect Size Note

7. Students in the green quadrant have scored:

- Above the national average in terms of their scale score; and
- Above the national average in terms of their effect size.

These results are pleasing. The scale scores are above average and they have improved across the two tests.

8. Students in the yellow quadrant have scored:

- Above the national average in terms of their scale score; but
- Below the national average in terms of their effect size.

These results can often go unnoticed. Whilst they are above the national average, they have not improved across the two tests.

9. Students in the blue quadrant have scored:

- Below the national average in terms of their scale score; but
- Above the national average in terms of their effect size.

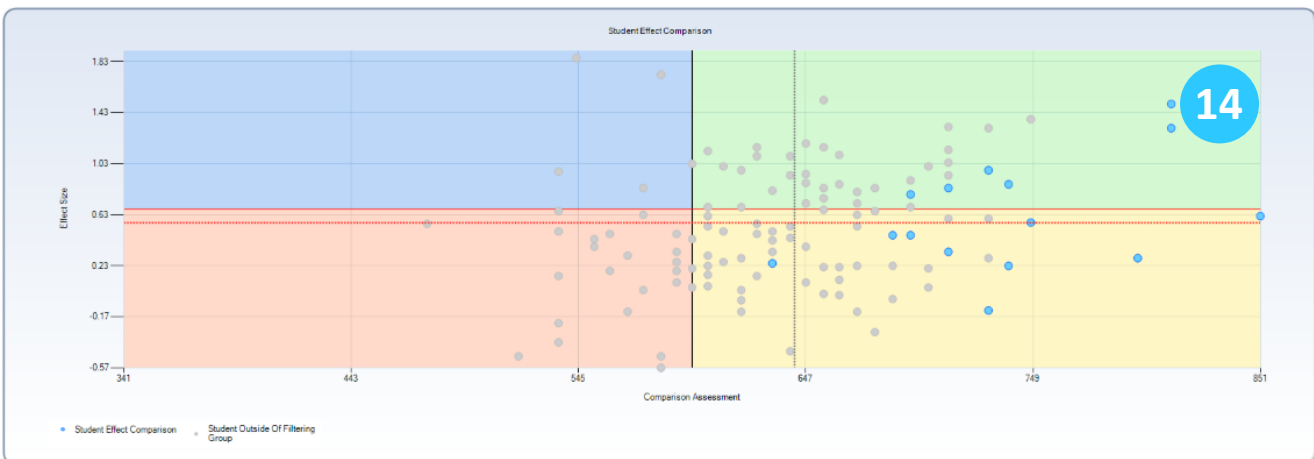
These results show promise. The scale scores may be below average, however they have improved significantly across the two tests.

10. Students in the red quadrant have scored:

- Below the national average in terms of their scale score; and
- Below the national average in terms of their effect size.

These results are concerning. The scale scores are below average and they have not improved across the two tests.

Initial Period: 2017, Year 7 Comparison Period: 2019, Year 9

Click bubble to filter student list. [Unselect bubble](#)

Quadrants

Student result greater than Effect Size and Mean Score
Student result greater than Effect Size but less than Mean Score
Student result less than Effect Size but greater than Mean Score
Student result less than Effect Size and Mean Score

— National Effect Size (0.68)
 — National Average (595.60)
 ••• School Effect Size (0.57)
 ••• School Average (642.07)

Student Effect Size Note
 An individual student's effect size is calculated using national data where national data is available.

School Effect Size Note
 The 'School Effect Size' has been calculated using only the results for students who completed BOTH the initial and comparison assessments. The 'School Average' and 'School SD' in the table below however reflect the average and SD for all students who participated in the assessment.

Period	Year Level	School Average	National Average	School SD	National SD
2015	5	537.39	487.60	53.02	69.00
2017	7	604.88	549.50	60.60	70.00
2019	9	643.73	595.60	63.49	66.30

Sort results by: 2019 Y9 Ascending Descending

Student Code	Surname	Given Names	Sex	Status	Date Left	2016 Y6	2017 Y7	2018 Y8	Range	Effect Size
329281	Jake		M	In Cohort	Current		809	851	42	0.62
354184	Louis		M	In Cohort	Current	703	722	811	89	1.31
3513210	Austin		M	In Cohort	Current		709	811	102	1.50
3569692	Lacey		F	In Cohort	Current			796		
312698	Charles		M	In Cohort	Current	638	776	796	20	0.29
3782566	Kirkman	Connor	M	In Cohort	Current	608	709	748	39	0.57

Legend: (% above or below national average)
 <-10% -5% to -10% 0 to -5% 0 to 5% 5% to 10% >10%

11. Summary statistics for the assessment items are listed below the graph.

12. Individual student results (on the latest assessment item) are then listed in the next table down. These results can be exported using the green Excel icon in the top right-hand corner of this section.

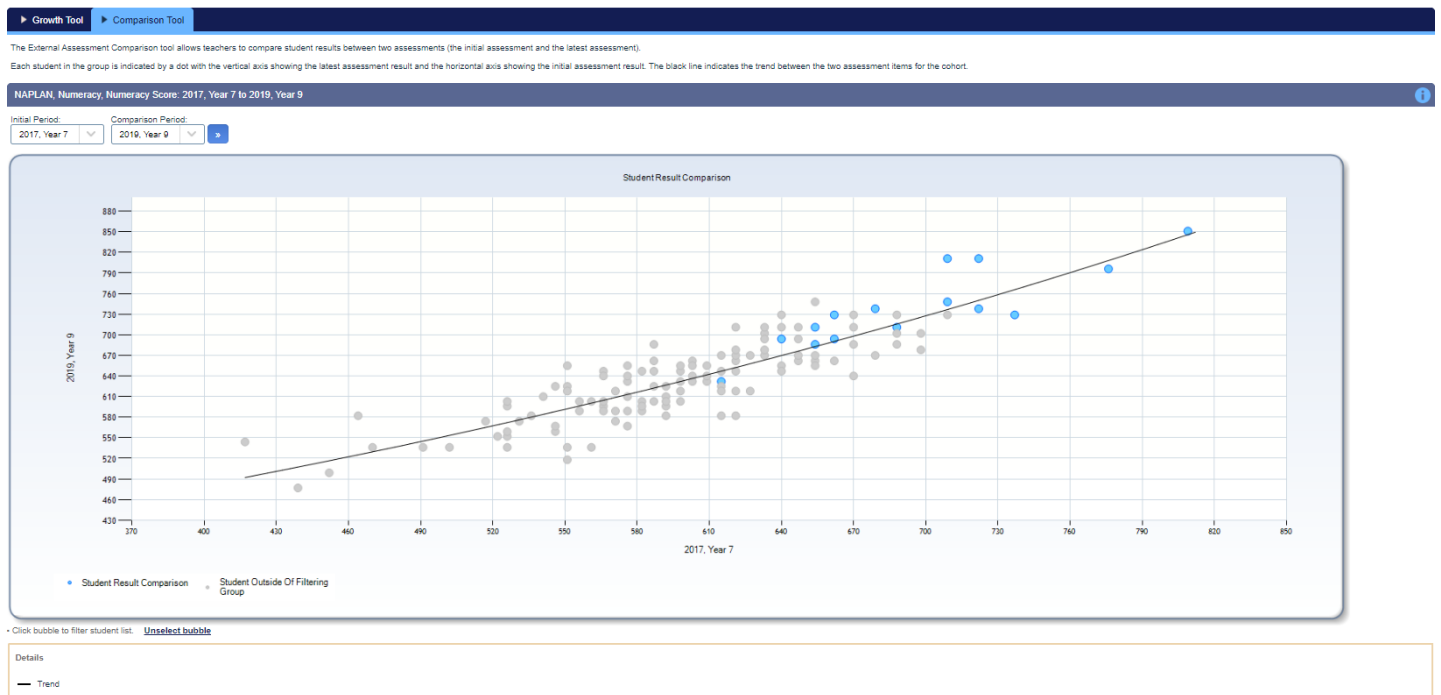
13. These results can be sorted in ascending or descending order.

14. Clicking on an individual bubble will condense these results to those of a single student.

15. Clicking on a student's ID number will open their transcript in a separate tab.

Performance Progress – Comparison Tool

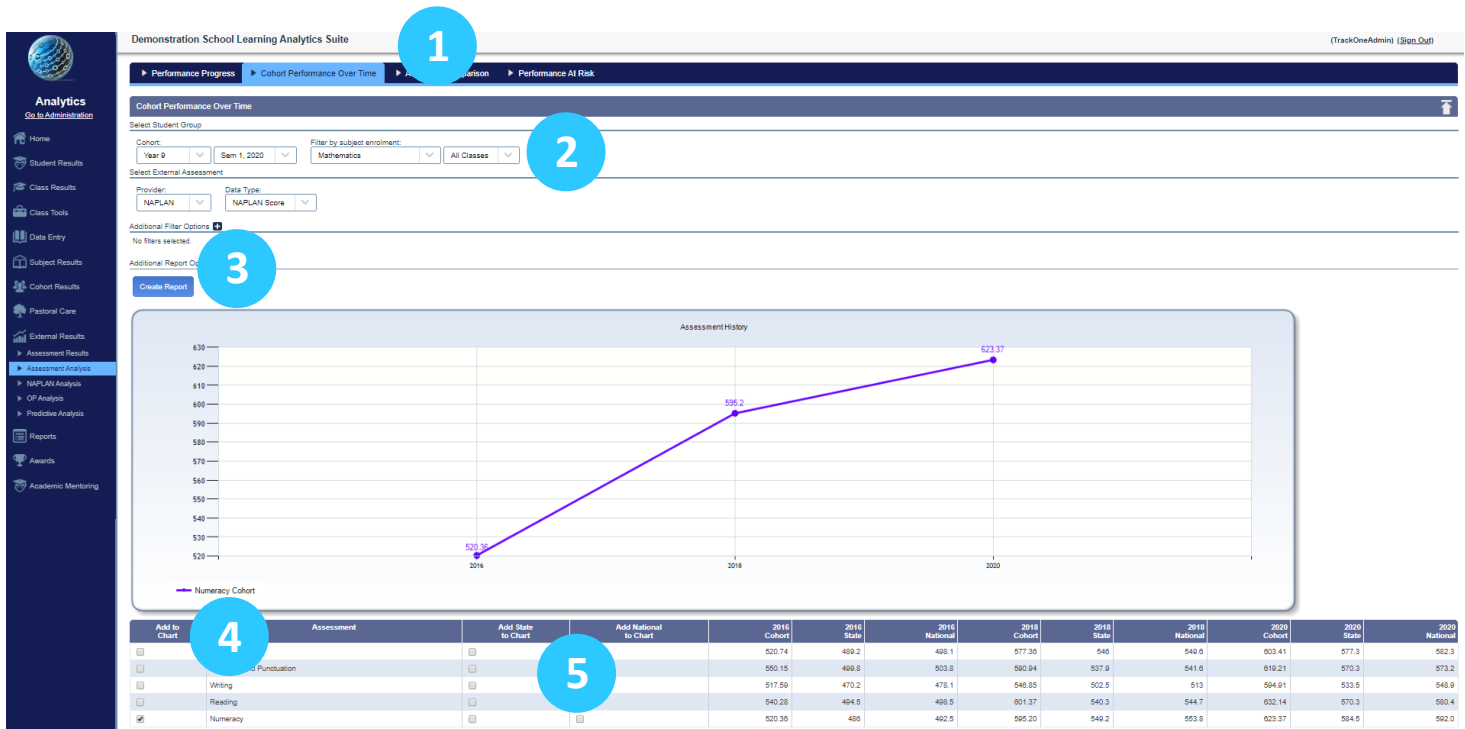
Now select the **Comparison Tool** tab. This tool allows teachers to compare student results between two assessments (the initial assessment and the latest assessment). In our current example we are comparing the Year 10 Mathematical Methods students' results between their NAPLAN numeracy test in 2017 with their numeracy test in 2019.



Each student in the class is indicated by a blue dot with the vertical axis showing the latest assessment result and the horizontal axis showing the initial assessment result. The black line indicates the trend between the two assessment items for the cohort.

Cohort Performance Over Time

The second tab on the green menu bar is **Cohort Performance Over Time**, which charts a cohort's performance on a particular assessment item over the years.



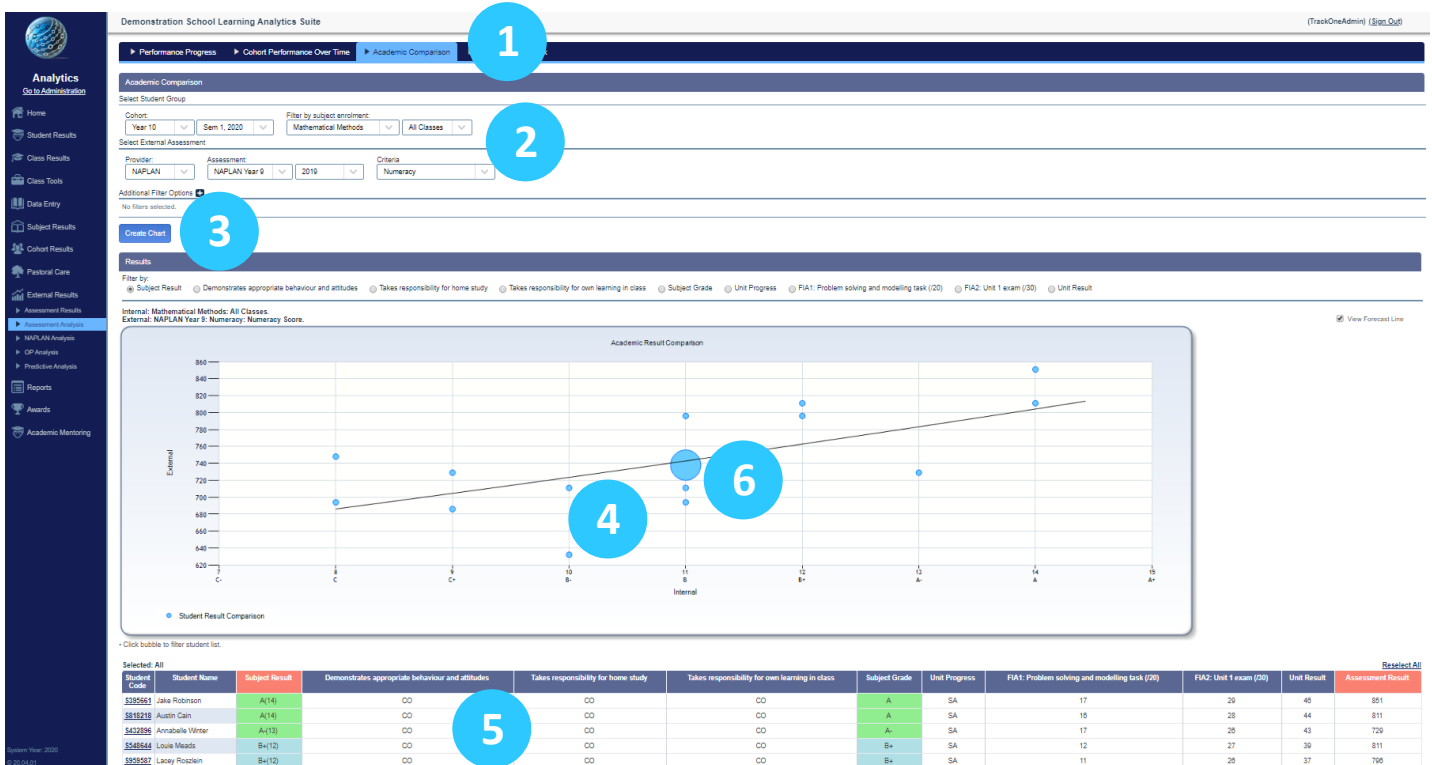
1. Use the blue horizontal menu bar to move to **Cohort Performance Over Time**.
2. Select the cohort, result period and subject for analysis.
For instance, Year 9 → Semester One 2020 → Mathematics.

Select the provider, section and data type.
For instance, NAPLAN → Numeracy → Numeracy Score.

In this example, the user is looking at the Year 9s of Semester One 2020 who were enrolled in Mathematics. They are analysing the degree to which these students' Numeracy scores improved over time.
3. Click **Create Report**.
4. There is the option to overlay additional assessment item results (from the same Provider). In the example above, the user may choose to overlay Spelling, Grammar, Writing or Reading results.
5. There is also the option to overlay State and National average results for a particular assessment item. In the example above, the user may choose to overlay State and National average Numeracy Score results.

Academic Comparison

The third tab on the blue menu bar is **Academic Comparison**, which plots a cohort's performance in a particular subject against their performance on an external assessment item.



1. Use the blue horizontal menu bar to move to **Academic Comparison**.
2. Select the cohort, result period and subject for analysis.
For instance, Year 10 → Semester One 2020 → Mathematical Methods.
Select the provider, assessment item and data type.
For instance, NAPLAN → Year 9 2019 → Numeracy score.
In this example, the user is looking at the Year 10s of Semester One 2020 who were enrolled in Mathematical Methods. They are plotting their Mathematics results against their Year 9 2019 NAPLAN Numeracy scores.
3. Click **Create Chart**.
4. The trend line indicates the expected internal and external results. In the example shown, a student who received a B- in Mathematics should have received a NAPLAN Numeracy score of approximately 720.
Students above the trend line are performing better than expected externally.
Students below the trend line are performing worse than expected internally.
5. The students' results are listed in the corresponding table.
6. The size of the bubble indicates the number of students. Clicking on an individual bubble will reduce the table to the students within that bubble.

Performance At Risk

The fourth tab on the blue menu bar is **Performance At Risk**, which identifies those students who have gained or lost a certain number of points on an external assessment item.

Demonstration School Learning Analytics Suite (TrackOneAdmin) (Sign Out)

► Performance Progress ► Cohort Performance Over Time ► Academic Comparison ► **Performance At Risk**

Performance At Risk

Provider: **NAPLAN** Assessment: **NAPLAN Year 7** 2017 Latest Assessment: **NAPLAN Year 9** 2019

Find all students who have **Gained** **50** or more **Numeracy** **Numeracy Score**

Additional Filter Options +
No filters selected.

ID	Student Name	Sex	NAPLAN Year 7 (2017), Numeracy Score	NAPLAN Year 9 (2019), Numeracy Score	Difference
\$952576	Logan Bowen	M	417	544	127
\$422743	Adam Blair	M	464	582	118
\$592756	Hollie Van Seysen	F	551	655	104
\$818218	Austin Cain	M	709	811	102
\$677533	Erin Higgins	M	587	686	99
\$199145	Emily Wilson	F	654	748	94
\$675553	Michael Kuefler	F	621	711	90
\$548644	Isabelle Meads	M	722	811	89
\$398612	Matthew Gooding	M	640	729	89
\$548711	Esme McGrath	F	566	647	81
\$563152	Phoebe Brock	F	576	655	79
\$127866	Julia Richards	F	546	625	79
\$352383	Jessica Farr	F	633	711	78
\$391811	Joseph Craig	M	526	603	77
\$435237	Amy Blakely	F	587	662	75
\$499347	Darcey Scott	F	587	662	75
\$514443	Lucy Wells	F	566	640	74
\$736751	Edward Cummins	M	551	625	74
\$221624	Phoebe Wells	F	640	711	71
\$715496	Sonny Flesher	M	526	596	70

1 2 3

1. Use the blue horizontal menu bar to move to **Performance At Risk**.
2. Select the provider, as well as the earliest and latest assessment item.
For instance, NAPLAN → Earliest: Year 7 2017 → Latest: Year 9 2019.
3. Select whether the application should return students who have gained or lost points on the chosen assessment item. Then select the number of points.
4. Select the section (e.g. Numeracy) and the data type (e.g. Numeracy score).

In the example above, the application is returning students who gained at least 50 NAPLAN Numeracy scale score points (between sitting the test in Year 7 2017 and Year 9 2019).

5. Clicking on an individual student's ID will produce their transcript below.
6. These results may be exported out into Excel.