

Briefing Note: He Whakaaro/Education Insights: What can NMSSA tell us about student progress and achievement?

To:	Hon. Chris Hipkins, Minister of Education		
Date:	2 November 2018	Priority:	Low
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Messaging seen by Communications team:	Yes		

Purpose of Report

The purpose of this paper is for you to:

Note the paper *What can NMSSA tell us about student progress and achievement?* The third He Whakaaro/Education Insights paper written by the Ministry of Education.

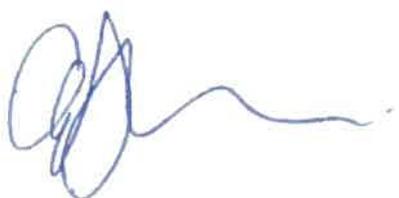
Agree that this Briefing Note will be proactively released.

Agree / Disagree

Summary

- *He Whakaaro/Education Insights - What can NMSSA tell us about student progress and achievement?* is the third in a new series of papers designed to make education research and analysis more easily accessible to policy makers, teachers, and the wider community.
- This paper uses the National Monitoring Study of Student Achievement (NMSSA) to analyse student progress and achievement and helps to validate findings from the previous e-asTTle analysis as reported in our first *He Whakaaro: 'Understanding student progress and achievement'*.
- The NMSSA report findings show that:
 - a. Across the majority of learning areas, with the exception of English: Reading, students achieve at the expected level at higher rates in Year 4 than Year 8 which suggests that progress is too slow between Years 4 and 8.
 - b. Despite students making the expected progress between year levels, they may not reach the expected level of achievement by Year 8 if they are not achieving at Year 4.
 - c. Progress within a learning area is similar across ethnic groups, gender and school deciles.

- These insights have been used to feed into the work of the Curriculum, Progress and Achievement Ministerial Advisory Group.
- The He Whakaaro is attached.
- We will liaise with your office about the release date and any communications required. We are proposing that this He Whakaaro be released at the same time as the results of the 2017 NMSSA. A report on this will be provided to you shortly.



Dr Craig Jones
Deputy Secretary
Evidence Data and Knowledge

2/11/18



Hon Chris Hipkins
Minister of Education

2/12/18

Proactively Released

Background

1. The He Whakaaro/Education Insights series is designed for a policy and practice audience and aims to deliver easily accessible insights about evidence which will underpin the education system and inform our work across the sector.
2. The first He Whakaaro/Education Insights (published in May 2018) summarised the results from a new e-asTTle research dataset compiled by the Ministry to look at the insights that can be gained when analysing attainment relative to progress. A key finding of that research was that students' levels of attainment in all three learning areas (mathematics, reading and writing) improve as they move through the years of primary schooling, but their progress rate declines on average as they move up the years of schooling. It also concluded that the differences in attainment (across the three learning areas) by school decile, gender or ethnicity observed at higher levels of primary schooling reflect different starting points rather than differing progress.
3. This third He Whakaaro/Education Insights uses NMSSA data which is designed to give a broad picture of student achievement across the New Zealand Curriculum. It does this by assessing representative samples of Year 4 and Year 8 students in English-medium state and state-integrated schools. Samples of students are assessed in different curriculum areas each year.
4. The first cycle of NMSSA took place from 2012 to 2016, and each learning area was assessed over this time using group tasks and one on one interviews. Students are given an overall score which is compared to the minimum score associated with achieving curriculum objectives at Level 2, 3 and 4. The expectation is that by the end of Year 4 students will be achieving the objectives of Level 2 of the curriculum, and by Year 8 will be achieving Level 4 curriculum objectives.

Key findings

5. The key findings of this report are:
 - a. Satisfactory progress can still result in unsatisfactory achievement: Even where progress from Year 4 to Year 8 matches the pace expected by the curriculum, if students were not meeting the expected level in Year 4, they will often still not be meeting the expected level in Year 8. They would need to progress faster than the pace of the curriculum to catch up.
 - b. Progress is too slow between Year 4 and Year 8: NMSSA results indicate that in most learning areas a greater proportion of Year 4 students than Year 8 students achieve at expected curriculum levels, which suggests not enough progress is made between Year 4 and Year 8 to meet the demands of Level 4 of the curriculum by the end of Year 8.
 - c. Better progress is being made in some learning areas: For example, while most students (85%) were at expected curriculum levels in Science at Year 4, only 19% were by Year 8. In contrast, almost the same proportion of Year 4 and Year 8 students were at the expected level in English: Reading (58% and 59%).
 - d. Rates of progress are similar across genders and socioeconomic status levels: although achievement differs between students at high and low decile schools, and boys and girls, the rates of progress look the same, so that students who start behind often fail to catch up. This also indicates that the gap in achievement begins early in a student's education, and that the gap remains, but does not widen, as they progress through school.

6. These findings support those from the e-asTTle data, as reported in the *He Whakaaro/Education Insights "Understanding student attainment and progress"*.
7. The Curriculum, Progress and Achievement Ministerial Advisory Group were briefed on this work and its link with the e-asTTle analysis at their 9 May meeting.

Next steps

8. We will liaise with your office about the release date and any communications required. We are proposing that this He Whakaaro be released at the same time as the results of the 2017 NMSSA. The 2017 NMSSA results focus on Science and Health and Physical Education and a report on this will be provided to you shortly.

Annexes

- Annex 1: *He Whakaaro – What can the NMSSA tell us about student progress and achievement?*
- Annex 2: *Communications Approach*

He Whakaaro

EDUCATION INSIGHTS

What can the NMSSA tell us about student progress and achievement?

Summary

This paper highlights findings across the *New Zealand Curriculum* (NZC) from the first cycle of the National Monitoring Study of Student Achievement (NMSSA).

Achievement and progress are both important measures of success for students in school

By looking at the difference in achievement between students at Year 4 and those at Year 8, we can estimate the amount of progress that occurs between those year levels. The findings are useful for distinguishing how achievement and progress towards meeting curriculum expectations differ across the curriculum learning areas.

Key findings

- » **Progress is too slow between Year 4 and Year 8:** The results indicate that in most learning areas a greater proportion of Year 4 students than Year 8 students achieve at expected curriculum levels, which suggests not enough progress is made between Year 4 and Year 8 to meet the demands of level 4 of the curriculum by the end of Year 8.
- » **Better progress is being made in some learning areas:** For example, while most students (85%) were at expected curriculum levels in Science at Year 4, only 19% were by Year 8. In contrast, almost the same proportion of Year 4 and Year 8 students were at the expected level in English: Reading (58% and 59%).
- » **Satisfactory progress can still result in unsatisfactory achievement:** Even where progress from Year 4 to Year 8 matches the pace expected by the curriculum, if students were not meeting the expected level in Year 4, they will often still not be meeting the expected level in Year 8. They would need to progress faster than the pace of the curriculum to catch up.

The importance of measuring progress

Both achievement and progress are important measures of success for students in school. Achievement information is gathered by measuring a student's performance against a standard at a single point in time without recognising how much growth has occurred. Progress compares achievement at two or more points in time in order to see how much growth has occurred.

Understanding school system performance relies on good quality assessment information that draws on a range of evidence about student learning. For the system to be responsive, robust information about student progress is needed. Progress information is important for students, teachers, families and whānau, and the government. Teachers can understand the rate at which their students are learning and can use the information to personalise learning. Parents and whānau can focus on their child's progress and support them with their next learning steps, and governments can make better decisions.

Measuring progress more systematically across the education system would enable better government decision-making that would impact positively on student learning outcomes. It can provide a better understanding of where resources should go, and how policies should be shaped, for the system to deliver equitable and excellent outcomes for students.

NMSSA background

NMSSA is designed to get a broad picture of student achievement across the NZC. It does this by assessing representative samples of Year 4 and Year 8 students in English-medium state and state-integrated schools. Samples of students are assessed in different curriculum learning areas each year.

The first cycle of NMSSA took place between 2012 and 2016, and the assessed learning areas were:

- » English: Writing (2012)
- » Science (2012)
- » Mathematics and Statistics (2013)
- » Health and Physical Education (2013)
- » English: Reading (2014)
- » Social Studies (2014)
- » English: Listening (2015)
- » English: Viewing (2015)
- » The Arts (2015)
- » Technology (2016)
- » Learning Languages (2016)

Achievement at Year 4 and Year 8 can be used to estimate progress between the year levels

In each learning area¹ students take part in group and one-on-one assessments, the results of which are combined into a single score per student. This score is reported on a common measurement scale across both year levels so that achievement at both levels can be compared (scores are standardised with a mean score of 100 and standard deviation of 20 across the two year levels). In some learning areas students were measured using more than one scale. For example, in Science students were measured against both the Knowledge and Communication of Science Ideas scale, which measured students' ability using a written assessment, and the Nature of Science scale, which used interview tasks. For the purpose of this report, where two scales exist, we are focussing on the written assessment scales.

Minimum thresholds are set to show what a student would need to score in order to be achieving, on balance, the achievement objectives outlined at each of curriculum levels 2, 3 and 4. The curriculum expectation at Year 4 is that students will have, on balance, achieved level 2 objectives by the end of the school year. In Year 8, they will have, on balance, achieved level 4 objectives by the end of the school year². NMSSA testing happens in term three and it is likely that more students would be at the expected level at the end of term four. Even so, this is a good estimate of how students are achieving towards the end of Year 4 and Year 8.

Students' scores on the measurement scales cannot be directly compared across learning areas because the measurement scales and curriculum levels are specific to each learning area. However, the percentage of students who achieved at or above expected curriculum levels for Year 4 and Year 8 within each learning area can be used as an indicator of relative progress made between the year levels.

1 Unlike other learning areas where curriculum levels generally relate to years at school, in Learning Languages the levels describe learning progressions that can have their starting point at different times in a student's education. This means that progress made between Year 4 and Year 8 is not comparable between Learning Languages and other learning areas and as such Learning Languages will not be included in this analysis.

2 In the Science curriculum, unlike other learning areas, achievement objectives for curriculum levels 1 and 2 are the same, and levels 3 and 4 are almost the same. NMSSA's expected curriculum levels are therefore different: emerging 1 & 2, developed 1 & 2, emerging 3 & 4 and developed 3 & 4, in ascending order. Instead of students being expected to be at curriculum level 2 by the end of Year 4, they are expected to be at developed level 1 & 2. At Year 8 they are expected to be at developed level 3 & 4, rather than level 4.

More students achieve at the expected curriculum level in Year 4 than Year 8, indicating that progress is too slow

There are a number of things to keep in mind when comparing progress across learning areas:

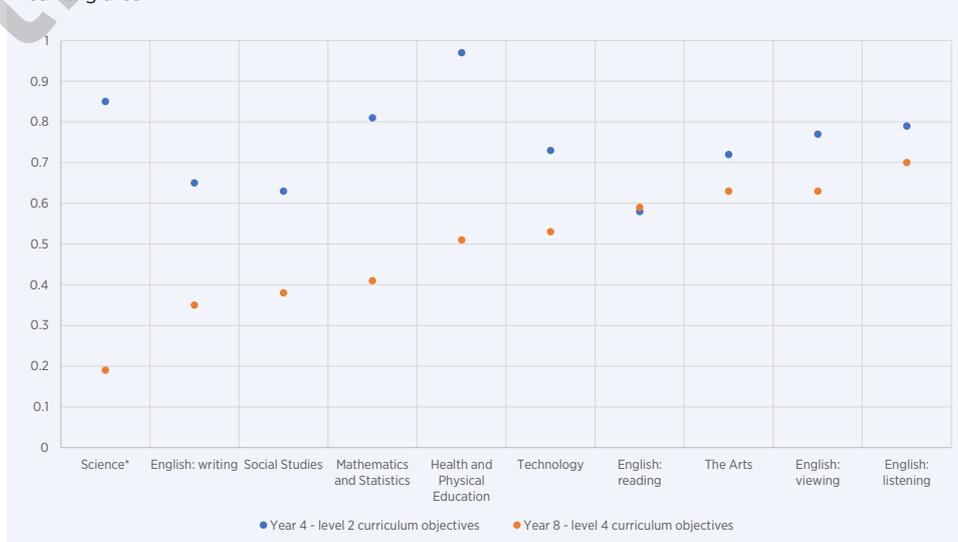
1. The two year level groups are different students (cohorts), rather than the same students measured at Year 4 and then later at Year 8. The difference in scores between the two groups of students does not necessarily reflect the growth of a single group of students over the course of four years.
2. Each learning area is assessed once in each 5-year cycle, with on average, two learning areas being measured each year. This means that any cohort differences are not accounted for when comparing subjects that were measured in different years (e.g. students becoming more intelligent over time).
3. We assume that the NZC accurately sets expectations of appropriate achievement at level 2 and level 4 across learning areas, and that these levels have been translated accurately into performance expectations in NMSSA tasks and assessments. One reason why the proportion of students meeting curriculum expectations decreases between Year 4 and Year 8 is that the expectations of different learning areas in the curriculum may be too easy at Year 4/level 2 or too hard at Year 8/level 4.
4. NMSSA introduced plausible values methodology in 2015 to estimate population statistics. Prior to 2015 the technique used to estimate population distributions resulted in the standard deviations of the distributions being underestimated. This in turn resulted in effect sizes being underestimated. This means that the introduction of plausible values generally lead to greater effect sizes related to progress. This makes it difficult to make direct comparisons of progress in learning areas studied between 2012 and 2014 (where plausible values were not used) and those studied in 2015 and 2016 (where plausible values were used)³.

Progress is too slow between Year 4 and Year 8...

In each learning area except English: Reading, there was a drop in the proportion of students achieving at the expected level between Year 4 and Year 8⁴. For example, in mathematics and statistics, 81% of students achieved at or above the expected curriculum level in Year 4, but for Year 8 the proportion dropped to 41%.

In other words, the share of Year 8 students achieving at the expected level is typically lower than in Year 4. This finding suggests that not all students are gaining the sufficient knowledge and skills to progress in line with the rate expected by the curriculum during those years. The percentage of students achieving at the expected curriculum level at Year 4 and Year 8 in each learning area are shown in *Figure 1* below.

Figure 1. Students achieving within or above the expected curriculum level by year group and learning area



³ For more information about NMSSA, and all previous reports, please visit the NMSSA website: www.nmssa.otago.ac.nz

⁴ Students are determined to be achieving at a curriculum level if they are achieving above the minimum scale score associated with achieving, on balance, the achievement objectives outlined at the curriculum level.

Achievement distributions and progress are different in each learning area of the curriculum

The gap between achievement rates at Year 4 and Year 8 can be used as an indicator of progress against curriculum expectations. A large gap points to a learning area where students are not making sufficient progress across curriculum levels to continue to achieve at the expected curriculum level at similar rates by Year 8 as what they were in Year 4. When the blue dot is higher it indicates that more students are behind what the curriculum would expect in Year 8 than they were in Year 4.

Progress looks different across learning areas

As *Figure 1* shows, the gap between rates of achievement at Year 4 and Year 8 looks different across the learning areas. The varied rates of progress against curriculum expectations indicates that students are having more success meeting the demands of curriculum levels in some learning areas compared to others.

Science, for example, has the largest difference in the percentage of students reaching the expected curriculum levels between the two year groups. Eighty-five percent of Year 4 students achieved at or above the expected curriculum level, compared with only 19% of Year 8 students. This suggests that despite the majority of younger students achieving as expected, progress between the years is not sufficient to ensure students maintain the expected competence into later years of schooling.

Figure 2 shows the full distributions (or range) of student scores for each year group in science. Year 4 student scores are largely grouped together, and the students with scores clustered around the average (shown by the peak of the distribution) are clearly within the expected level ('Developed level 1 and 2', or above the lowest dotted line). The Year 8 scores are more spread, and the peak is well below the expected level ('Developed level 3 and 4', or above the top dotted line).

The 'growth' observed between Year 4 and Year 8 means that many students have not achieved the level expected by the curriculum by Year 8.

Achievement for Year 4 and Year 8 students in the Arts, English: Viewing and English: Listening learning areas looks quite different.

The distributions in *Figure 3* show that in Year 4 some students are already achieving at curriculum level 4 (where they are expected to be by the end of Year 8), and that in Year 8 some students are still not achieving at curriculum level 2.

The progress observed in these learning areas between Year 4 and Year 8 means that the levels of achievement against curriculum expectations have remained relatively stable compared to Science.

Figure 2. Distribution of Year 4 and Year 8 achievement in Science against curriculum levels

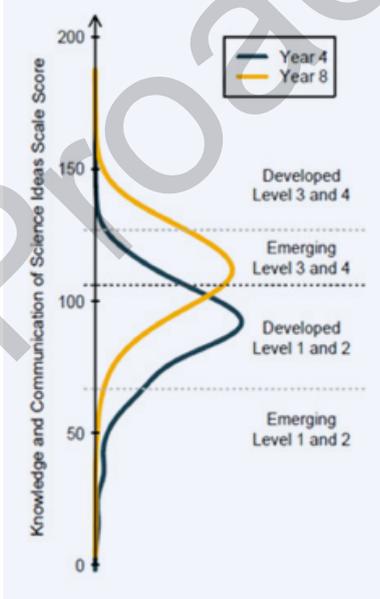
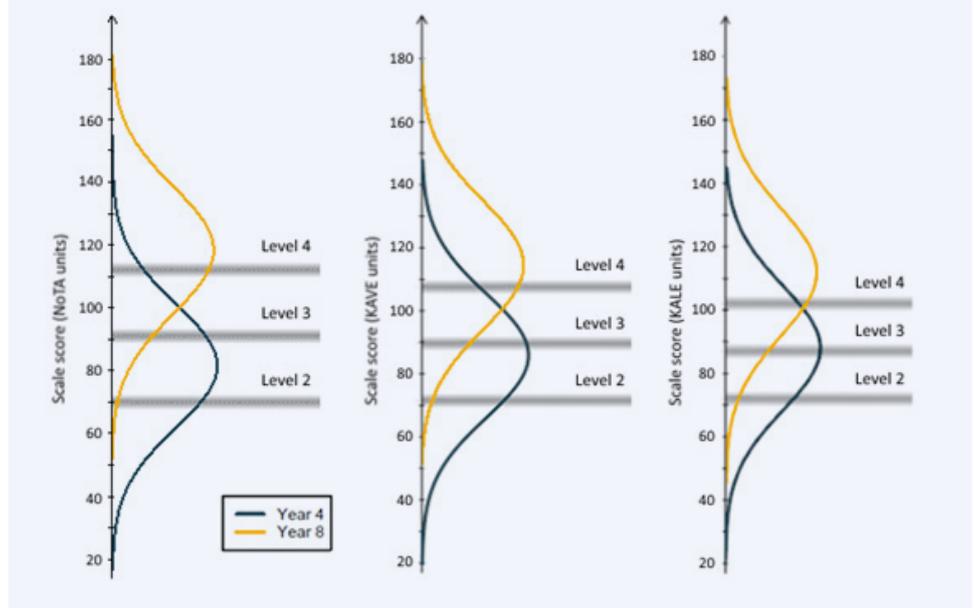


Figure 3. Distribution of Year 4 and Year 8 achievement in the Arts, English: Viewing and English: Listening against curriculum levels



A drop in the proportion of students achieving at the expected level between Year 4 and Year 8 remains, but it is smaller than the drop seen in Science. These findings suggest that in these learning areas progress is more in line with the expectations of the curriculum.

Table 1 provides the percentages of students that are achieving at each curriculum level, which is shown graphically in Figure 3. These numbers show the spread in achievement across curriculum levels, and that even at Year 4 there are students already achieving at curriculum level 4 or above, and at Year 8 there are still some students achieving below curriculum level 2.

The Arts, English: Viewing and English: Listening have the highest rates of Year 8 students achieving at the expected curriculum level. This provides further support for the view that on average students are making good progress in these learning areas.

Table 1. Percentage of Year 4 and Year 8 students achieving at curriculum levels 2-4 in the Arts, English: Viewing, and English: Listening

Curriculum Learning area	Year 4				Year 8			
	< level 2	level 2	level 3	level 4 +	< level 2	level 2	level 3	level 4 +
The Arts	28	40	26	6	1	8	28	63
English: Viewing	23	34	29	13	2	9	25	63
English : Listening	21	26	29	24	3	8	19	70

However, as Figure 3 and Table 1 show, there is a lot of variation in the scores - with the scores being spread out across the range (with reasonably flat distributions). This tells us that, despite better progress between Year 4 and Year 8 compared to other learning areas, a notable proportion of Year 8 students did not achieve the objectives associated with the expected curriculum level.

Satisfactory progress can still result in unsatisfactory achievement

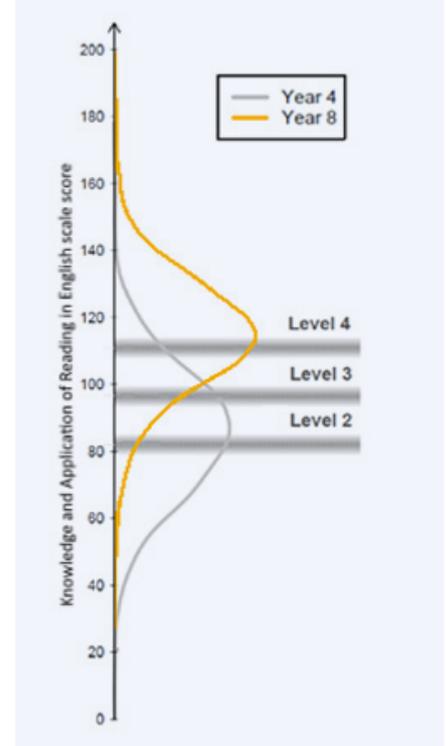
Even if students progress as expected, it may not be enough for them to catch up

The story is different for English: Reading - the only learning area where there was not a clear difference in the proportion of students achieving at the expected curriculum level between Year 4 and Year 8 (58% of Year 4 and 59% of Year 8 students). Although these results suggest that average progress from Year 4 to Year 8 was in line with curriculum expectations in English: Reading, the proportion of Year 4 students achieving the expected curriculum area was the lowest across all the learning areas.

Figure 4 shows that the spread of student scores is greater at Year 4 than Year 8. This indicates that more students are scoring closer to the average in Year 8, and there are fewer students achieving at very high or very low levels compared to the average.

The proportion of students achieving at the expected level in English: Reading is virtually equal in Years 4 and 8, implying that progress was at pace with curriculum expectations. Because just over half of students were achieving at expected levels in Year 4, a large number who weren't achieving at the expected level required better than curriculum pace progress to be achieving at the expected level by Year 8. There remain a large number of students who are not achieving at the expected curriculum level at Year 8 (shown in Figure 4 as below the level 4 line for Year 8).

Figure 4. Distribution of Year 4 and Year 8 achievement in English: Reading against curriculum levels



Students from both high and low decile schools make similar progress

Rates of progress are similar across genders and socioeconomic status levels

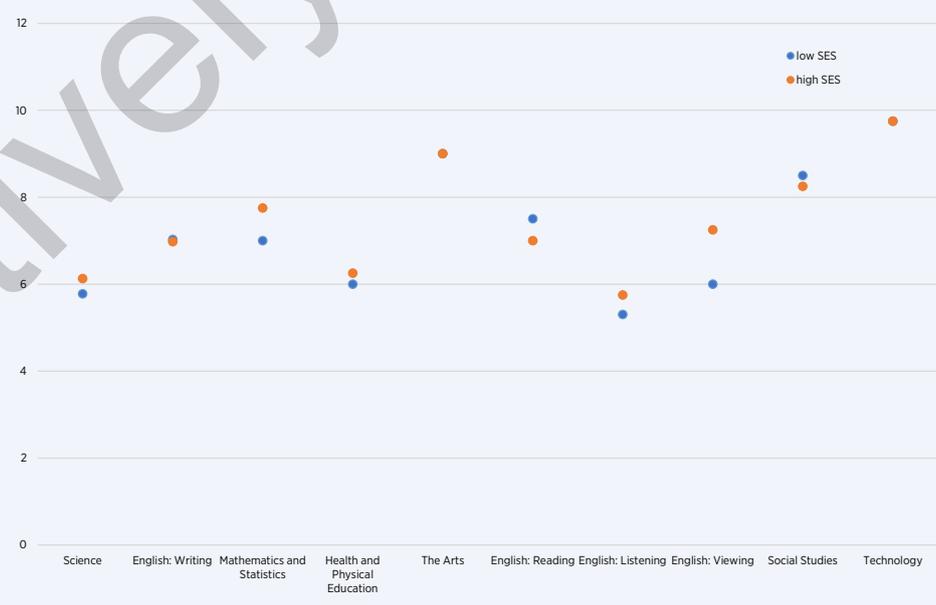
A lower proportion of students at low socioeconomic status (SES)⁵ schools achieve at expected curriculum levels compared with students who attend high SES schools, in both year 4 and Year 8. This means that students in low SES schools are less likely to be achieving at expected levels. However, there is a wide range of achievement within each SES level, so not all students at low SES schools are low performers and not all students at high SES schools are high performers.

Across most learning areas a greater proportion of students at both SES levels achieve at expected curriculum levels in Year 4 than in Year 8. English: Reading is the exception, with similar proportions of low and high SES students achieving at expected curriculum levels at both year levels.

We use students' achievement scores at Year 4 and Year 8 and the average annual progress made by all students to estimate the difference in achievement between high and low SES students, in terms of years of progress. The difference in average scores between high and low SES students at both year levels is equivalent to, on average across learning areas, two and a half times the average amount of progress made in a year. This means that, on average, low SES students are about two and a half years behind their peers at Year 4, and the gap remains at Year 8.

Despite the difference in achievement, low SES students show a similar rate of progress to the progress seen in high SES students, as shown in *Figure 5* below. Where only the orange dot can be seen average annual progress is identical between students at high and low SES schools. This supports findings from e-asTTle data, where rates of progress across SES groups were found to be similar, and that the average achievement gap between students in low SES communities and those in relatively advantaged communities does not narrow over time⁶.

Figure 5. Average annual progress made by students at high and low SES schools, across learning areas



Although students across all SES levels are making similar rates of progress, due to their low achievement in Year 4, the progress made by low SES students does not allow them to catch up to the higher levels of achievement seen by high SES students at Year 8.

5 Decile is used as a proxy for socio-economic status in NMSSA. Low SES schools are schools in decile 1-3, and high decile schools are decile 8-10.

6 Ministry of Education (2018) Understanding student progress and achievement. Available from: <https://www.educationcounts.govt.nz/publications/series/education-insights/understanding-student-attainment-and-progress>

Progress and achievement are both important measures of success at school, and removing barriers to learning in early years could make students more likely to succeed

Progress by boys and girls across learning areas exhibits similar patterns to those seen in SES. In some learning areas girls achievement scores are higher than boys, while boys score higher than girls in others. The rate of progress between Year 4 and Year 8 is similar across genders. This means that in most learning areas, the gender who scores higher in Year 4 is the same gender who scores higher in Year 8, and any gap in attainment between the genders remains as the student moves through the curriculum. Mathematics and Statistics is the exception to this, with girls scoring higher than boys in Year 4 and boys scoring higher in Year 8. While boys had lower achievement in Year 4, they made more progress, and by Year 8 were achieving higher than girls. At both year levels the gender differences in mathematics and statistics were relatively small.

In summary

By looking at the proportion of students who achieved at the expected curriculum level in Year 4 and Year 8, it is possible to estimate the rate of progress students are making against the curriculum between those years. It gives an indication of how students manage as the expectations and challenges of the curriculum increase, and their skills and abilities need to grow. The analysis shows that across the majority of learning areas, with the exception of English: Reading, students achieved at the expected level at higher rates in Year 4 than Year 8. This suggests that progress is too slow between Years 4 and 8 and a concerning proportion of students are not able to demonstrate the skills and knowledge expected by the curriculum at Year 8.

There are differences in the proportion of students achieving at expected levels in different learning areas by Year 8 and looking at the full distribution of student scores gives us greater insight into progress between the year levels.

This analysis highlights how important it is to understand student progress, as well as achievement, and what expectations for progress look like, given a student's starting point. It also highlights the importance of identifying potential barriers in the earlier years of schooling. It supports the notion that even if a student makes progress consistent with what would be expected over a year (half a curriculum level), in line with their peers, if they start off at a lower point it is harder for them to catch up in later years of schooling.

Importantly, what this analysis shows is that more progress is being made in some learning areas than others. Using tools such as e-asTTle or PaCT at an individual school level can help teachers to ensure their assessment of students' abilities and progress matches with the curriculum expectations and identify where they may need to offer additional support.

This analysis helps to validate findings from previous e-asTTle data analysis⁷, that progress across groups is largely similar, although achievement scores vary. Because NMSSA is a sample-based study we can use it to check that more detailed data sets where schools opt in, such as e-asTTle, are representative of the schooling system in New Zealand. This makes NMSSA an important asset when schools are able to use different combinations of assessment tools. NMSSA also gives us valuable data on the progression and achievement of students in learning areas outside of the core subjects (reading, writing, and maths).

WHAT'S NEXT? AND WHAT QUESTIONS DOES THIS ANALYSIS RAISE?

Will these patterns of progress and achievement hold up over multiple cycles of NMSSA? The second round of NMSSA began in 2017 and Science and Health and Physical Education reports from the second round are due to be released in November 2018.

If we accept that progress between Years 4 and 8 is similar for different groups, but their starting point is different at Year 4, when did this difference start to occur? What does progress between Year 1 and Year 4 look like? Are schools identifying achievement differences before Year 4? If so, why aren't they able to get students to catch up to their peers by Year 4 or Year 8?

7 Ministry of Education (2018) Understanding student progress and achievement. Available from: <https://www.educationcounts.govt.nz/publications/series/education-insights/understanding-student-attainment-and-progress>

Even though, on average, students make similar rates of progress between Year 4 and Year 8, progress is not high enough, on average, in order to meet curriculum expectations by Year 8. Why not? Future insights using e-asTTle and PaCT data may allow us to answer these questions.

There are differences in progress across learning areas. International studies have found that there is a difference between the numbers of teachers in New Zealand and overseas who have qualifications specialising in the subjects that they teach. New Zealand students are less likely to have teachers who had training that specialised in maths or science than the international average. The 2014/15 Trends in International Maths and Science Study (TIMSS) found that only 19% of New Zealand Year 5 students who took part in the study had a teacher who specialised in maths, and 15% had a teacher who specialised in science⁸.

This compares to the international rates of 43 and 38%, respectively. In contrast, more Year 9 students had teachers who specialised in maths or science, with 66% having a maths teacher who specialised in maths, and 93% having a science teacher who specialised in science. New Zealand had fewer teachers with maths specialisations in Year 9 than the international average, but a similar proportion in science. These differences could help explain why New Zealand students seem to make less progress in STEM (Science, Technology and Mathematics) subjects and could be investigated further in future insights.

Authored by Jessica Forkert

8 Ministry of Education (2016) Teachers and teaching in maths and science: what we know from New Zealand's TIMSS 2014/15 results for Year 5 and Year 9. Available from: <https://www.educationcounts.govt.nz/publications/series/2571/timss-201415/teachers-and-teaching-in-maths-and-science-what-we-know-from-new-zealands-timss-201415-results-for-year-5-and-year-9>



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Look out in your inbox for the next He Whakaaro.



For further information, questions or discussion around additional analysis and potential topics for an Education Insights please contact Requests.EDk@education.govt.nz



Communications Approach

Release of He Whakaaro/Education Insights paper: *What can the NMSSA tell us about student progress and achievement?*

Key messages

We are releasing the third paper in the He Whakaaro series, entitled '*What can the NMSSA tell us about student progress and achievement*'. The series is designed to make education research and analysis more accessible to the sector.

The paper uses data from the first cycle (2012-2016) of the National Monitoring Study of Student Achievement (NMSSA) to look at the progress of students between Years 4 and 8 across the curriculum.

The paper found that progress is too slow between Year 4 and Year 8, with more students achieving at the expected curriculum level at Year 4 than Year 8, with the exception of English: Reading. Progress differs amongst students and across learning areas, for example some students at Year 4 are already achieving at Level 4 of the curriculum, where students are expected to be achieving by the end of Year 8. Conversely, there are students at Year 8 who are still not at the Year 4 expected level (curriculum Level 2). These differences in progress cannot be explained by gender or decile, as progress looks similar across these groups.

Finally, where students start their journey matters, and if they start behind, even if they make progress in line with curriculum expectations they will still not be achieving in their later years. They would need to progress faster than the pace of the curriculum to catch up.

Note: NMSSA does not follow individual students across their learning journey, instead it uses representative samples of Year 4 and Year 8 students in English-medium state and state-integrated schools. The differences in achievement between these cohorts of students are used as a proxy for progress between the two years.

The findings from this report support findings from the previous e-asTTle analysis, as reported in our first He Whakaaro: *Understanding student progress and achievement*. Insights from both of these papers have been used to inform the work of the Curriculum, Progress and Achievement Ministerial Advisory Group.

Activity plan

This report is to be released on Education Counts the week beginning 19 November.

The report is currently being socialised within the Ministry and externally, including via a presentation on progress across using data from NMSSA, e-asTTle, PaCT and the OECD's Equity in Education report.