

Good Shepherd School Report to Parents and Whānau on Student Achievement

NZCER PAT Mathematics Assessment Term Four 2021 and Term One 2022

NZCER PAT Mathematics Test

PAT: Mathematics for Years 3-10 helps teachers determine their students' levels of achievement in the knowledge, skills and understanding of mathematics in the New Zealand Curriculum. It is devised by the New Zealand Council of Educational Research (NZCER), it is directly aligned with the New Zealand Curriculum, and it targets the big ideas students need to understand in order to make progress.

PAT: Mathematics assesses:

- Number knowledge
- Number strategies
- Algebra
- Geometry and measurement
- Statistics

Most students undertake a specific levelled test, however for some students we administer adaptive tests.

PAT Mathematics tests can provide teachers with useful supplementary information about how well their students have mastered a range of mathematical skills. More specifically, PAT Mathematics tests can help teachers and schools to:

- Identify children who need extra help
- Group children with similar needs and abilities
- Diagnose difficulties which are unique to individual students or common to many students
- Evaluate programmes and policies
- Verify teacher judgements about students' abilities relative to those in other parts of the country

Stanine Groupings

Figure 1 shows stanines from 1-9 placed into 5 categories and 3 broad bands, and the percentage of NZCER's national sample of students who scored within each of the 3 bands. These stanine categories and bands (along with the scale scores from which the stanines originate) form the basis for this report's analysis of GSS student achievement.

Grouping	LOW	BELOW AVERAGE		AVERAGE			ABOVE AVERAGE		OUT STANDING
	1	2	3	4	5	6	7	8	9
Percentage of NZCER sample who scored in each category	4%	7%	12%	17%	20%	17%	12%	7%	4%
Percentage of NZCER sample who scored in each achievement band	Stanine 1-3: 23%			Stanine 4-6: 54%			Stanine 7-9: 23%		

Figure 1: Table of Stanine Groupings of NZCER Control Group

Students who score at stanine 9 are outstanding mathematicians, in the top 4% of their year level nationwide, skilled in numeracy and able to apply these skills to problem solving. Students who score at stanine 5 are average in most aspects of maths and are in the middle 20% of students nationwide. Students who score at stanine 1 are in the lowest 4% and those who score at stanine 2 are in the next 7% and intervention should be prioritised here.

1. General Performance and Progress, 2019, 2020, 2021 and 2022

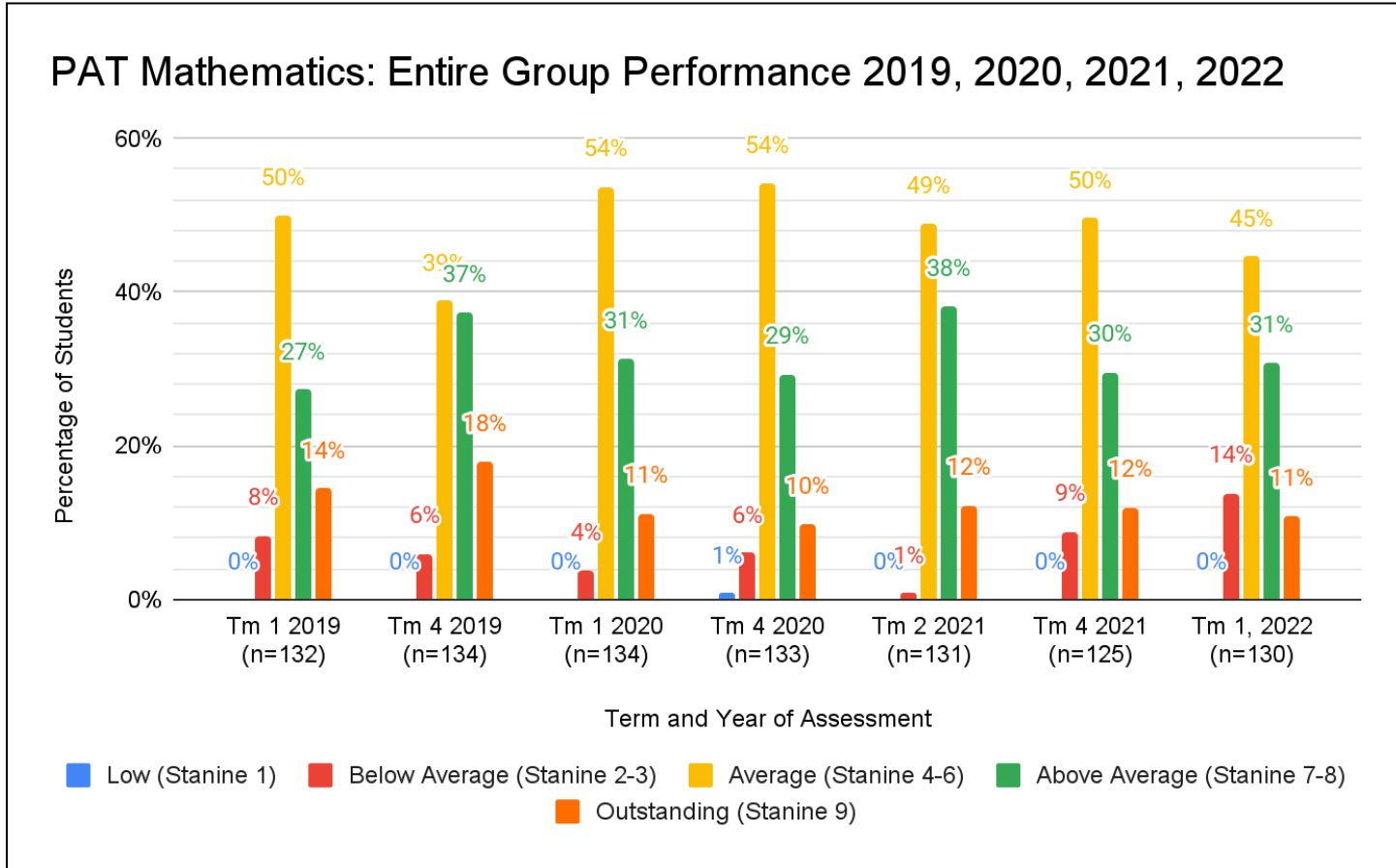


Figure 2 shows that the vast majority of our students sit in average or above categories with a minority below average. We have a few more students in the below average category than before, however the rest of the categories remain stable.

2. Cohort Comparisons Over 6 Assessments

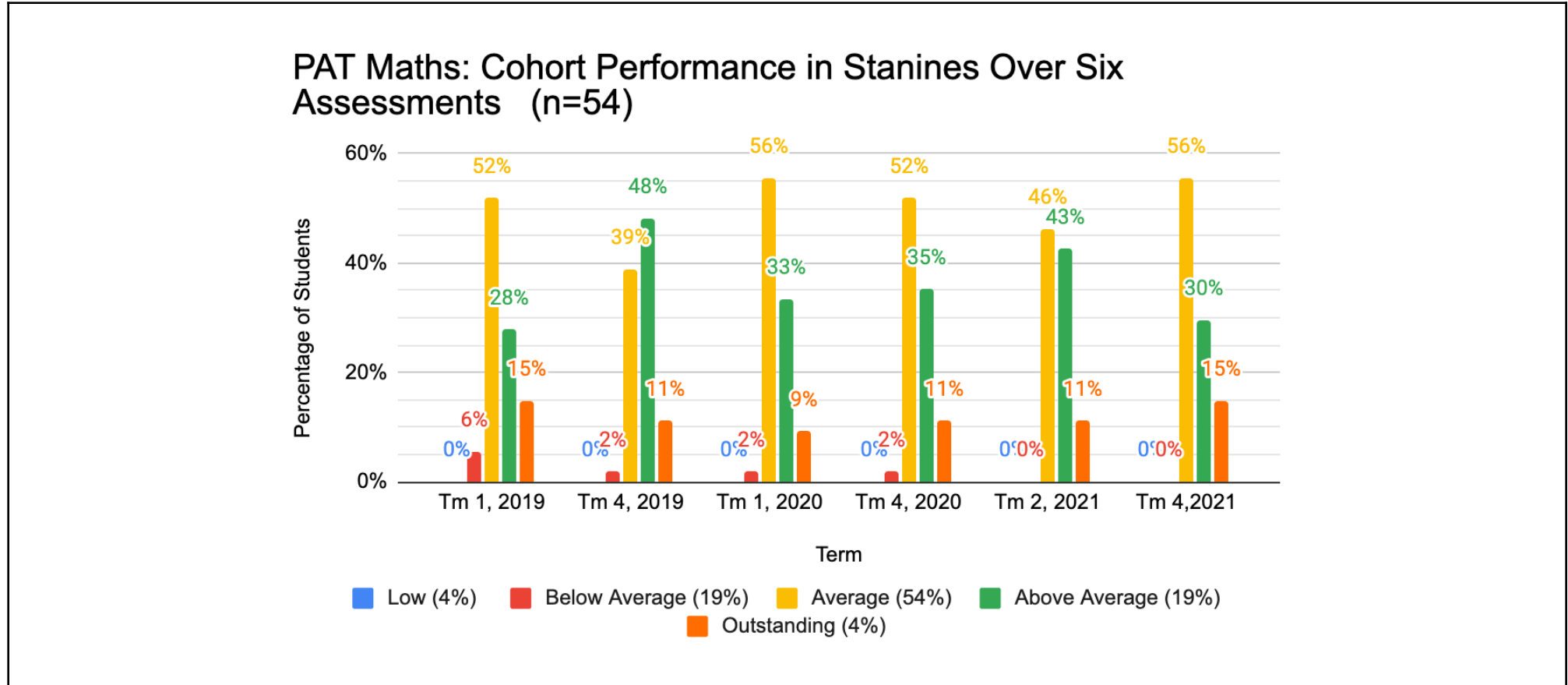


Figure 3: Cohort Performance in Stanine Groupings Over Six Assessments

Only the groups of students who undertook all shown assessments are included in this chart, reducing numbers but allowing us to compare the exact same group of individuals across assessments. Each year our cohort changes, we can't include Year 7, but we can start including Year 5. For easy reference the mean average percent as shown in Figure 1, is listed next to each category. This cohort is still performing better than the national average over the last two assessments, but not as much so as the three preceding assessments.

Next Steps

Our first priority is to acknowledge the fact that Good Shepherd students are still performing well when compared with the national average. Importantly, the national reference sample group undertook their assessment well before the advent of COVID-19. It is unlikely that any national reference group could currently perform to this level.

Despite this, GSS students are not achieving as well as usual and COVID-19 is almost certainly the main cause. Our next steps include:

- Continue to use data at classroom, year and whole school levels to identify trends and areas of strength and need
- Continue to implement targeted interventions in areas of need.
- Continue our focus on professional learning and development in mathematics for all kaiako/teachers
- Continue to work closely with whānau to address the challenges faced by our learners