Good Shepherd School Report to Parents and Whānau on Student Achievement

NZCER PAT Mathematics Assessment Term Four, 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

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

Grouping	LOW	BELOW AVERAGE		AVERAGE			ABOVE AVERAGE		OUT STANDING
Stanine	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

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. 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%, those who score at stanine 2 are in the next 7% and intervention should be prioritised here.

1. General Performance and Progress Since 2019

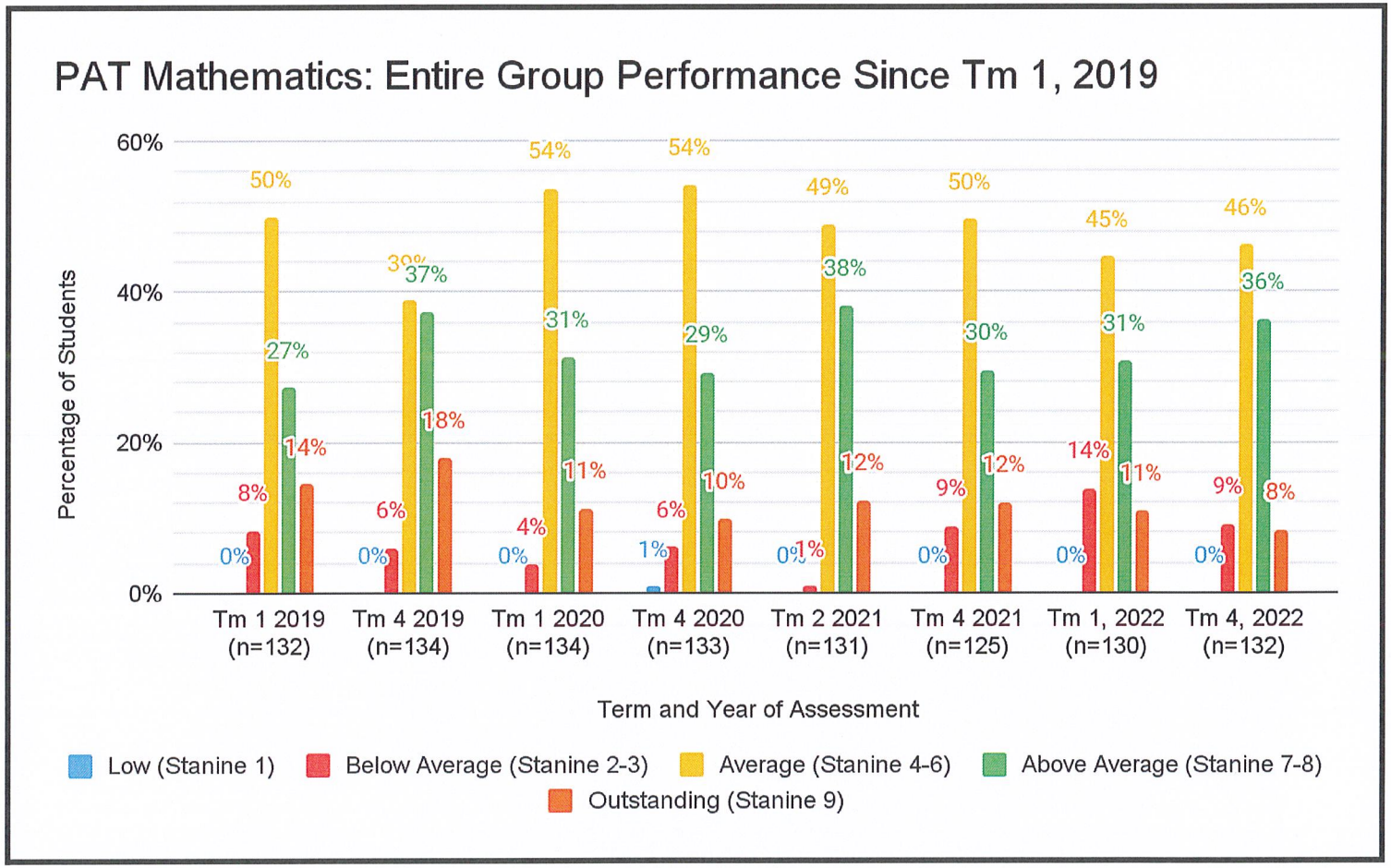

Figure 2: General Performance Entire Group: Chart of Stanine Groupings Since 2019

Figure 2 shows that the vast majority of our students sit in average or above categories with a minority below average. We are no longer displaying more students in the below average category, all the categories remain stable.

2. Cohort Comparisons Over Several Assessments

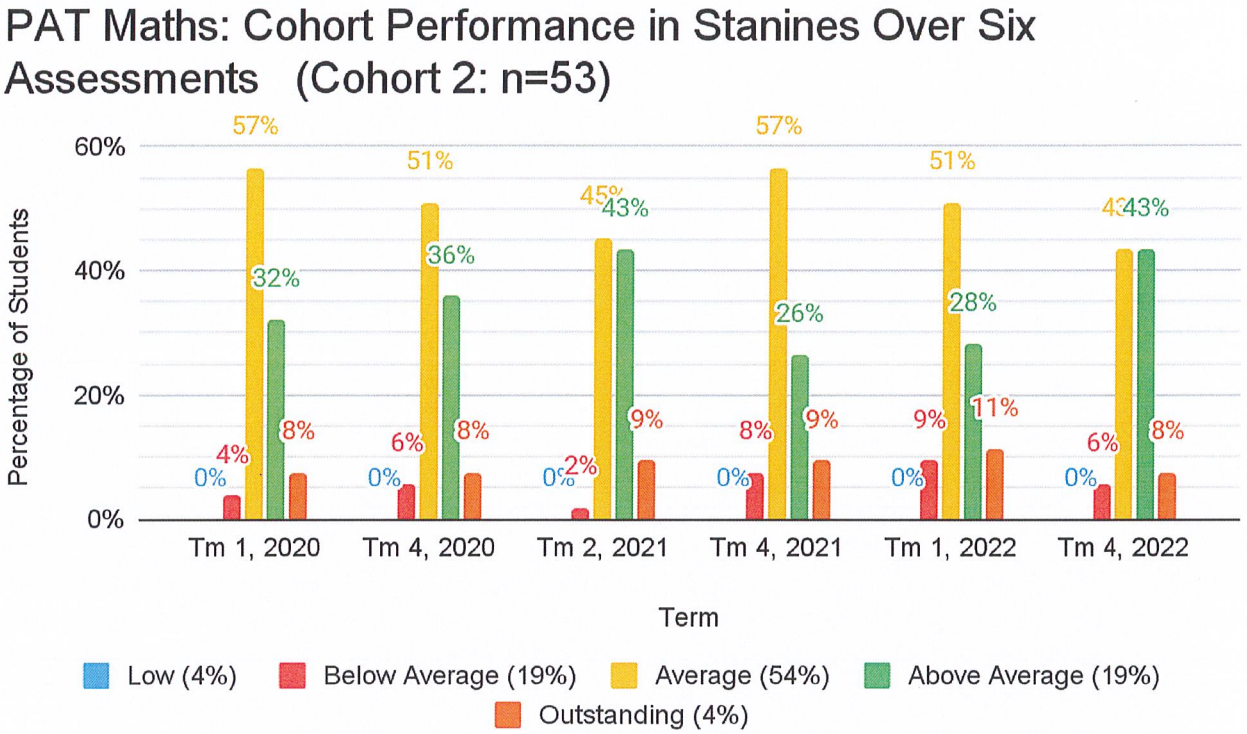

Figure 3 : Cohort Performance in Stanine Groupings Over Six Assessments

Only the groups of students who undertook all shown assessments are included in these charts, reducing numbers but allowing us to compare the exact same group of individuals across assessments. For easy reference the mean average percent as shown in Figure 1, is listed next to each category. This new cohort is performing far better than the national average and in fact have only performed as well as this in one previous recorded assessment, more than making up for lost ground.

Next Steps

- Our first priority is to acknowledge the successful work by Good Shepherd teachers/ kaiako, especially through the disruption caused by COVID-19. We perform far and above the national averages in mathematics, and we appear to have made good progress towards regaining some of the ground lost during COVID lockdowns. As always we have specific areas of strength and those that need closer attention, and these areas are under constant discussion and consideration for action.

- Figure 3 shows that our cohort who sat all 6 assessments continued to perform far better than the national average, and in fact have only performed as well as this in one previous recorded assessment. They have more than overcome setbacks.

- We will continue to use data as comparison for subsequent assessments as it provides useful insight into our practice. We will continue to involve teachers fully in all aspects of data analysis in relation to their own classes and those of others, especially students identified as 'at risk' for any reason, including lack of extension.