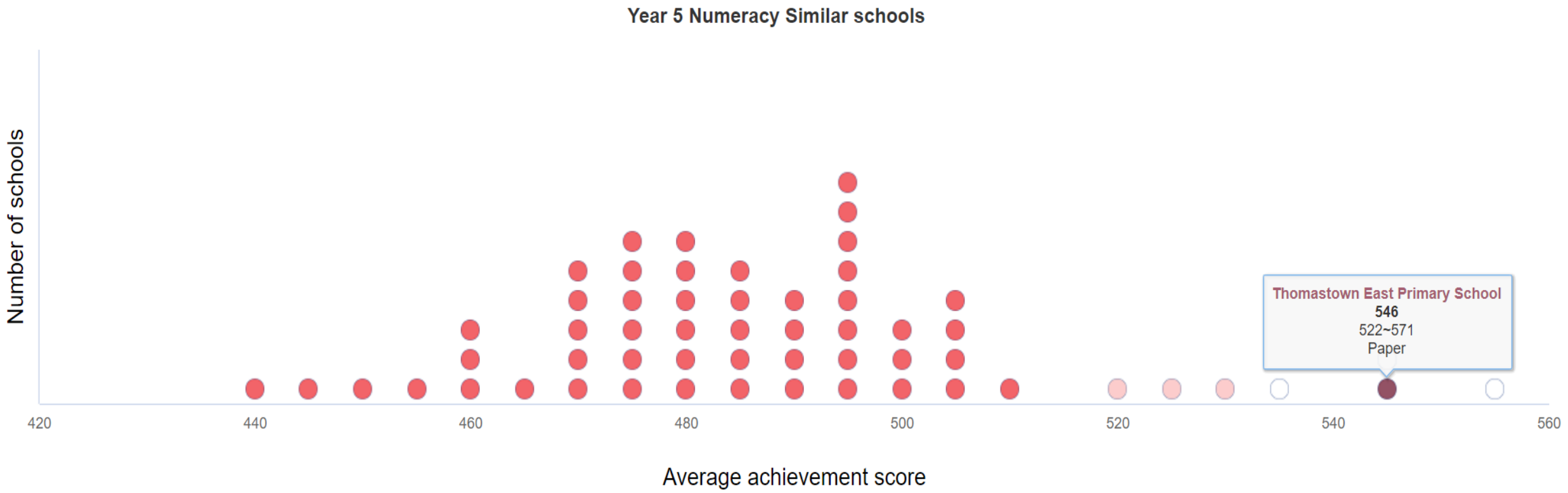
Intensively piloted as part of numeracy consultancy work and an intensive research project at three Australian primary schools (different sized campuses, all in disadvantaged regions) between 2016 and 2018

Intensive term-by-term numeracy coaching, planning workshops with teams and curriculum days over the course of two years.

NAPLAN student gains and comparisons to like and all Australian schools published by ACARA are detailed in this document.

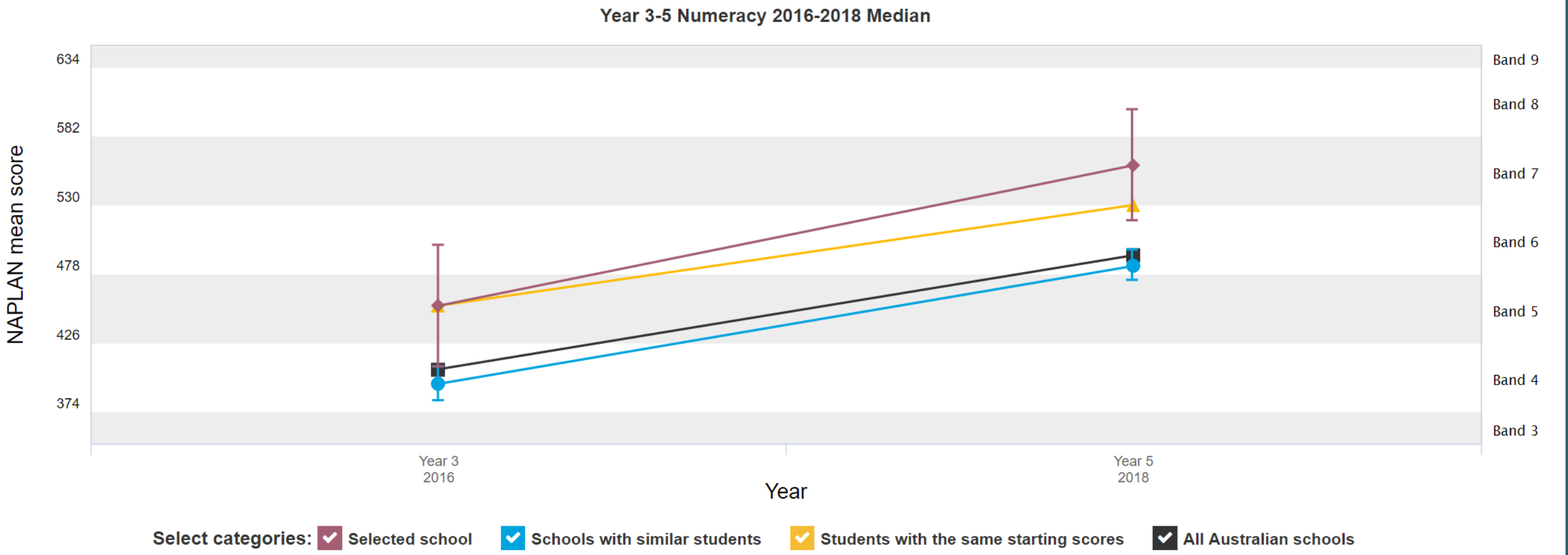


Partner PD School Thomastown East Primary School

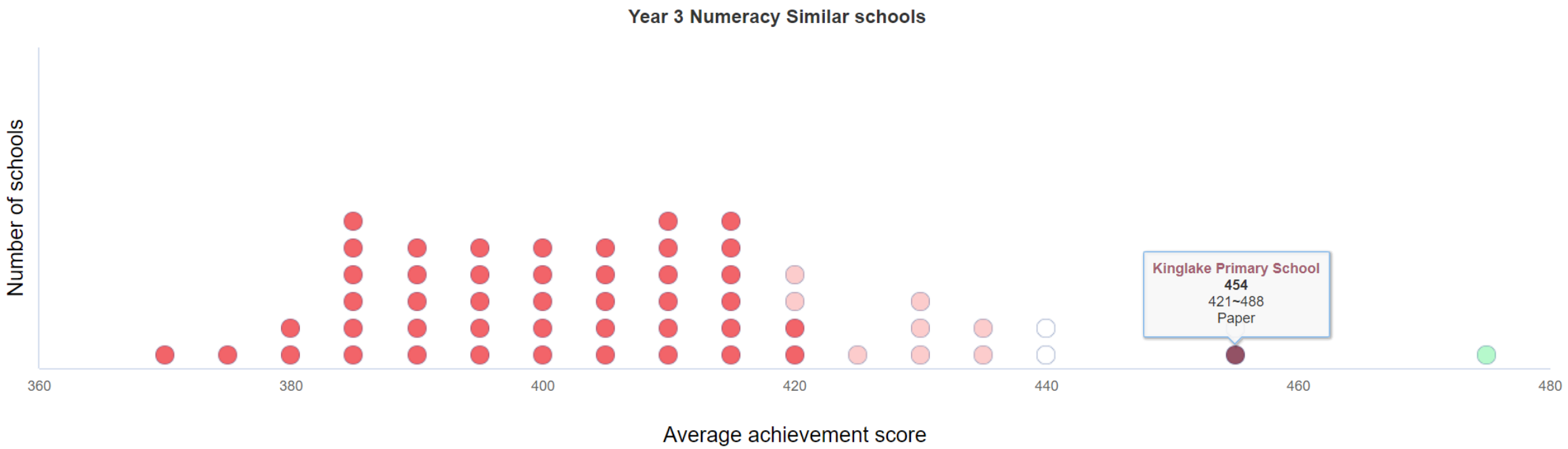
(medium school, 200 students)

This school's maths leaders were tasked by the Principal with finding the country's best program for numeracy and implementing it school-wide. Both leaders chose Top Ten Mathematics. Teams had PD during planning times and classroom modelling every term throughout 2017 and 2018.

A clear outlier result (as shown above) in terms of both student gain and raw scores in numeracy, when compared to similar or all schools.

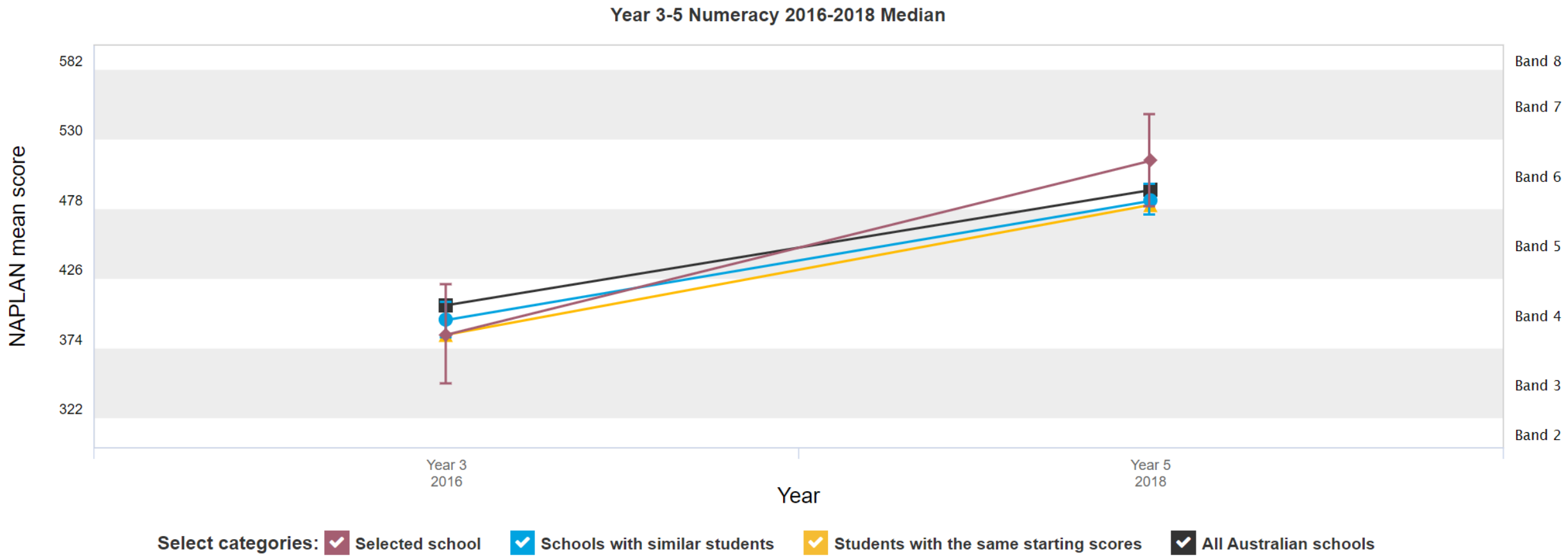


Continues to make significantly higher than average gains in numeracy despite the higher starting point of its students from year 3 to 5, relative to both all schools and similar schools. Most schools with high year 3 results drop off by year 5 (yellow line), but not Top Ten Maths PD schools (burgundy data line of Thomastown East).



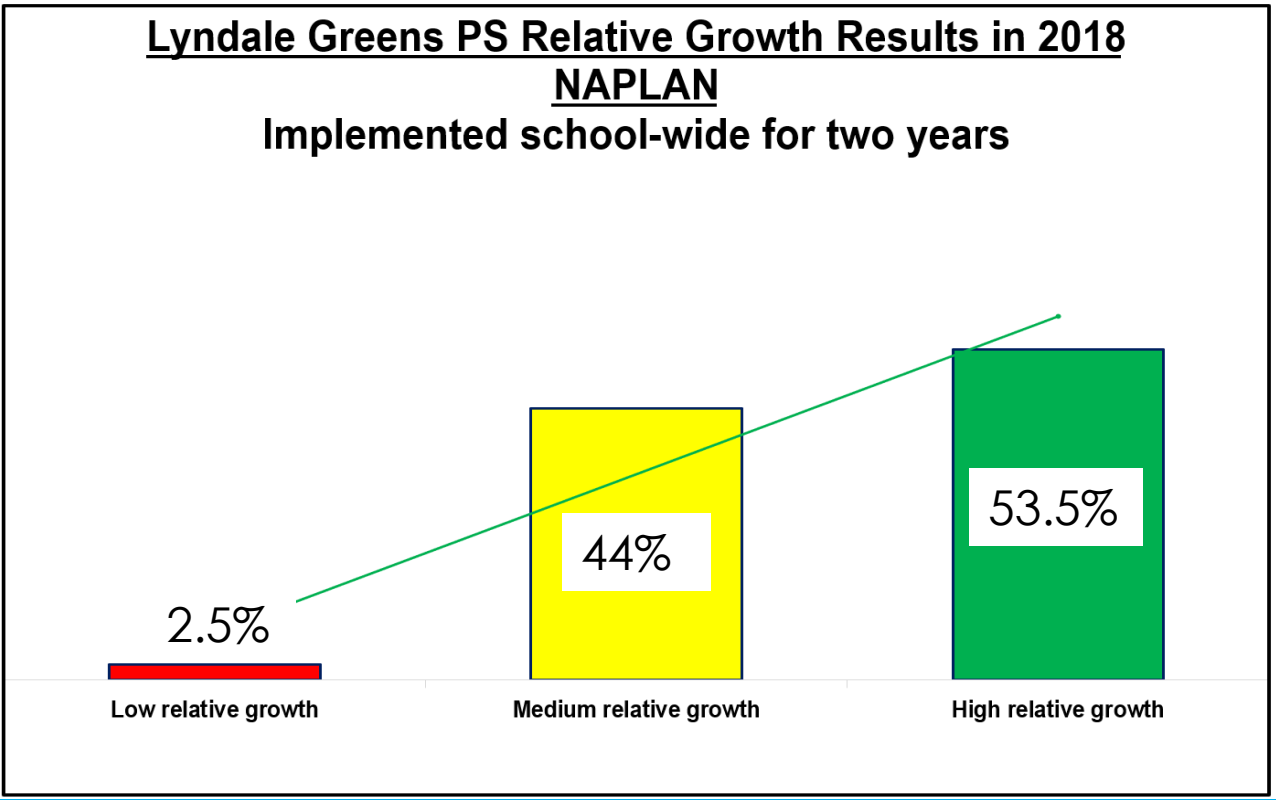
Top Ten Maths PD School: Kinglake PS (small school, under 80 students)

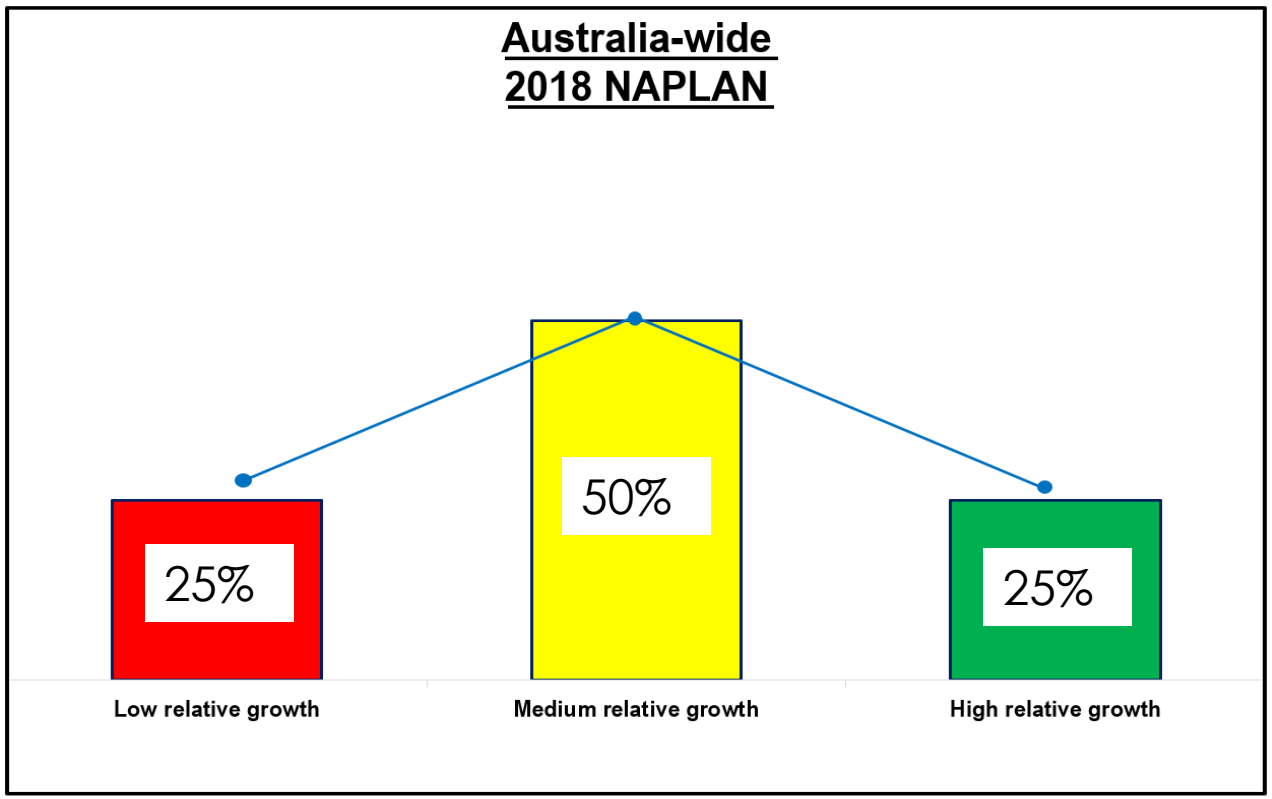
In 2018, grade 3 students at Kinglake PS performed the highest out of all like government schools' year 3 students and the second highest of all like schools in Australia (the highest was a catholic college).



Percentage of students in this year level for whom previous NAPLAN results (2 years prior) are available: 93%

The burgundy line of student gain: While in other like schools (blue and yellow lines) the matched student cohorts had average student gains from year 3 to 5, at Kinglake PS student gains between these year levels was notably higher (by almost an entire band). Both the growth and raw scores at Kinglake PS overtook like schools after using Top Ten.



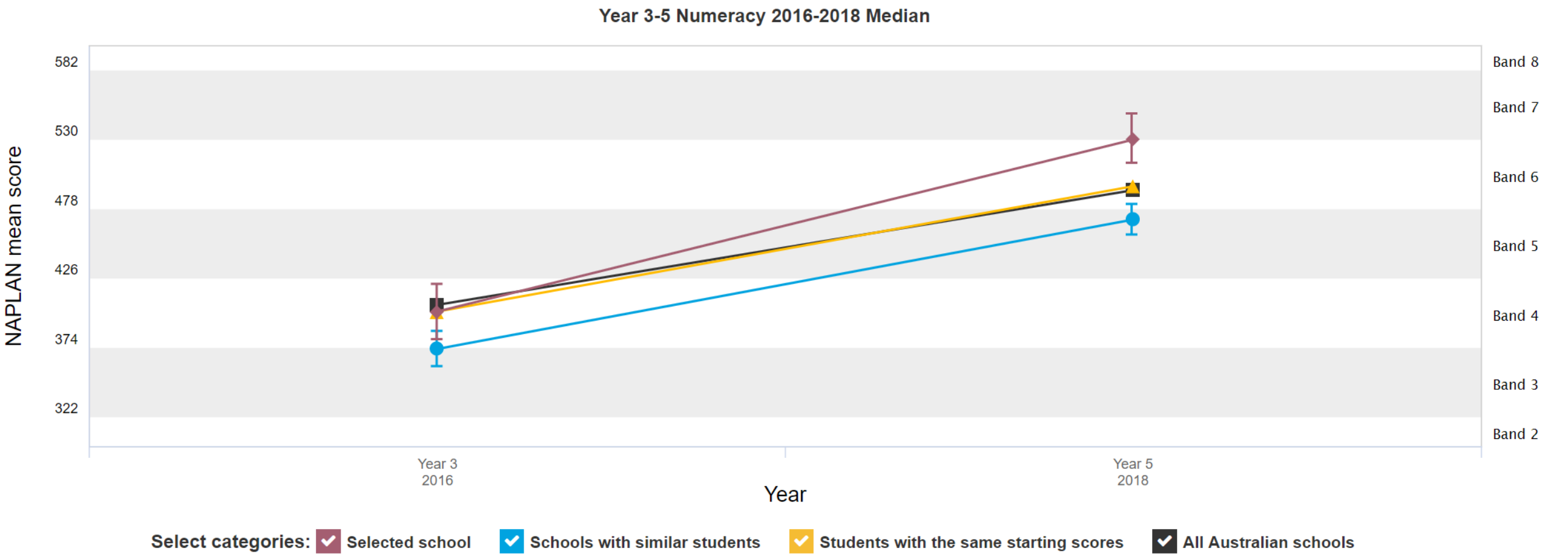


Top Ten Maths PD School: Lyndale Greens PS

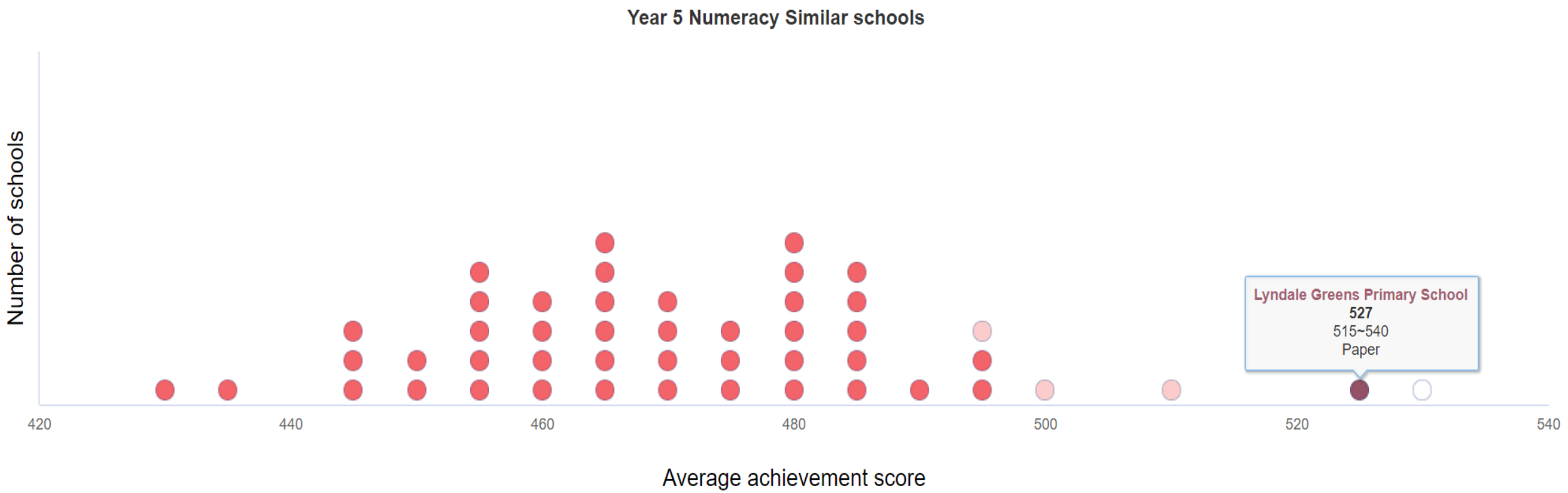
(large school, over 500 students)

Achieved one of the highest student gain results for numeracy for the NAPLAN year 3 to year 5 matched cohort after two years of intensive implementation with coaching in classroom and team planning days (2016 to 2018).

53.5% of students achieved high relative growth (compared to 25% Australia-wide) and only 2.5% of students scored low relative growth (compared to 25% Australia-wide), even though this school has 48% of its students in the lowest socio-economic quartile.



Most students in the matched cohort progressed from band 4 to band 7, making significantly stronger gains than similar schools, and exceptional gains compared to schools with the same starting scores. Even though the cohort had strong growth up to Year 3, students at Lyndale Greens PS continued to make much stronger than average gains between year 3 and year 5.



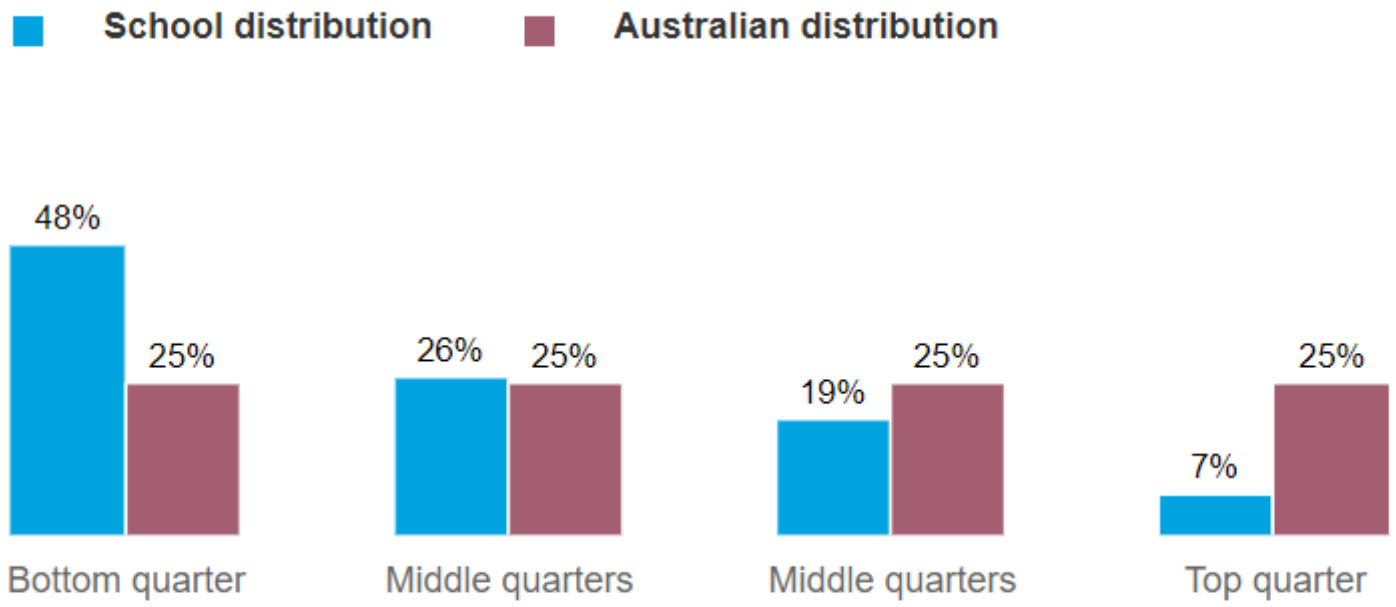
A clear outlier (3 out of 3 of our intensive schools significantly outperformed their like schools) in terms of both raw scores and student gains in numeracy. Irrespective of the size differences of our three PD schools, the graphs almost look identical because the outcome of using a hands-on approach to teach maths is the same, regardless of school size.

Student background

Index of Community Socio- Educational Advantage (ICSEA)

School ICSEA value	962
Average ICSEA value	1000
Data source	Parent information

Distribution of students



Percentages are rounded and may not add to 100

All achieved in a disadvantaged socio-economic context with high ESL and refugee status, including 48% of students coming from the most disadvantaged socio-economic quartile.

About us

- Top Ten was founded and is entirely owned by Australian primary school teachers, not programmers or IT graduates. All units were created, then tried-and-tested in Australian classrooms for ten years (2006-2016). Our hands-on maths packs have been used by non-pilot primary schools since 2016.
- Our program is dedicated to bringing the power and joy of materials-based mathematics to life in every Australian classroom and to make engaging, high-impact mathematics instruction achievable for every Australian teacher.

How Top Ten is different to other approaches to numeracy instruction

- Top Ten uses a hands-on approach to maths, not worksheets or click-answer technologies. We take primary maths back to its origins – back to materials.
- While we often use technology (YouTube clips, interactive games, links to students' interests) as engaging hooks to tune-in students, the critical mathematical skills are established through explicit teacher modelling (fishbowls with materials) and with students using manipulatives to develop conceptions and efficient strategies.
- All units are developmentally-sequenced, taking teachers and students on a journey through the big ideas of mathematics.
- Top Ten diagnostic assessments are paper-based, focusing on strategies, not just answers. These then pinpoint developmental gaps using spreadsheets that calculate points-of-need, gaps, growth and value-add before and after each unit. Formative assessments are also built into the units.
- While all lessons and units are developmentally-sequenced and directly aligned to the Australian and each state's curriculum (for example, the New NSW Syllabus, WA Curriculum and Victorian Curriculum), our units go beyond what to teach and support teachers on a day-by-day basis with how to teach.

Hands-on Maths Pack inclusions

To maximise each teacher's time, our sequential units and rich tasks include:

- Photographs of numeracy leaders' classroom modelling, lessons in action in real classrooms and detailed student work samples.
- Warm-ups and engaging hooks.
- Sequential learning intentions and relevant maths vocabulary for every session.
- Pre-planned enabling and extending prompts to cater for the wide range of abilities that exists in any classroom, with extension and support built into every rich task.
- Diagnostic and formative assessments that pinpoint points-of-need, developmental gaps, emphasise growth and track impact, all based on students using strategies (not just clicking answers).

Thank you for your time

More information and sample packs: www.toptenresources.com

Enquiries or questions: maths@toptenresources.com