



School Motto

“In Knowledge Lies Strength”

Principal: Mr David Johns

Year 7 Teacher: Miss Nehmat Nikro



Background

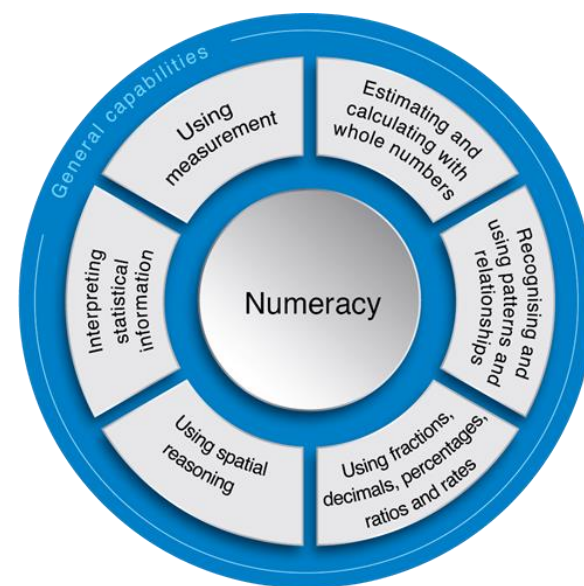
School context

- ▶ Expanding K-7 coeducational school
- ▶ English is an additional language or dialect for a significant percentage of students
- ▶ During pre-test period there were 12 students in year 7

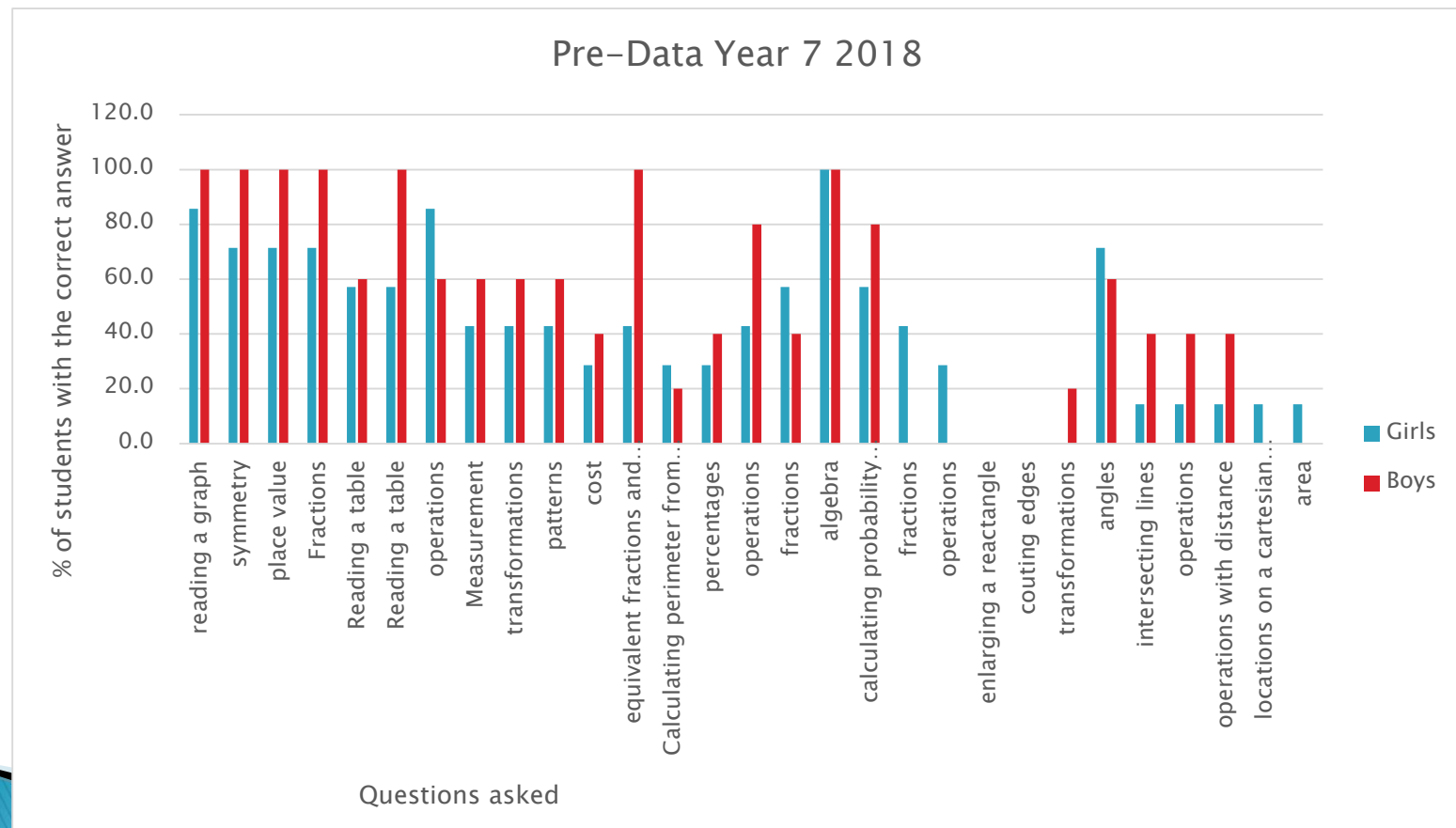
Stage One of the Journey: What did the Principal get me into?

Key data

- ▶ Analysed previous NAPLAN data to identify a potential focus area
- ▶ Used this information to create the pre-test

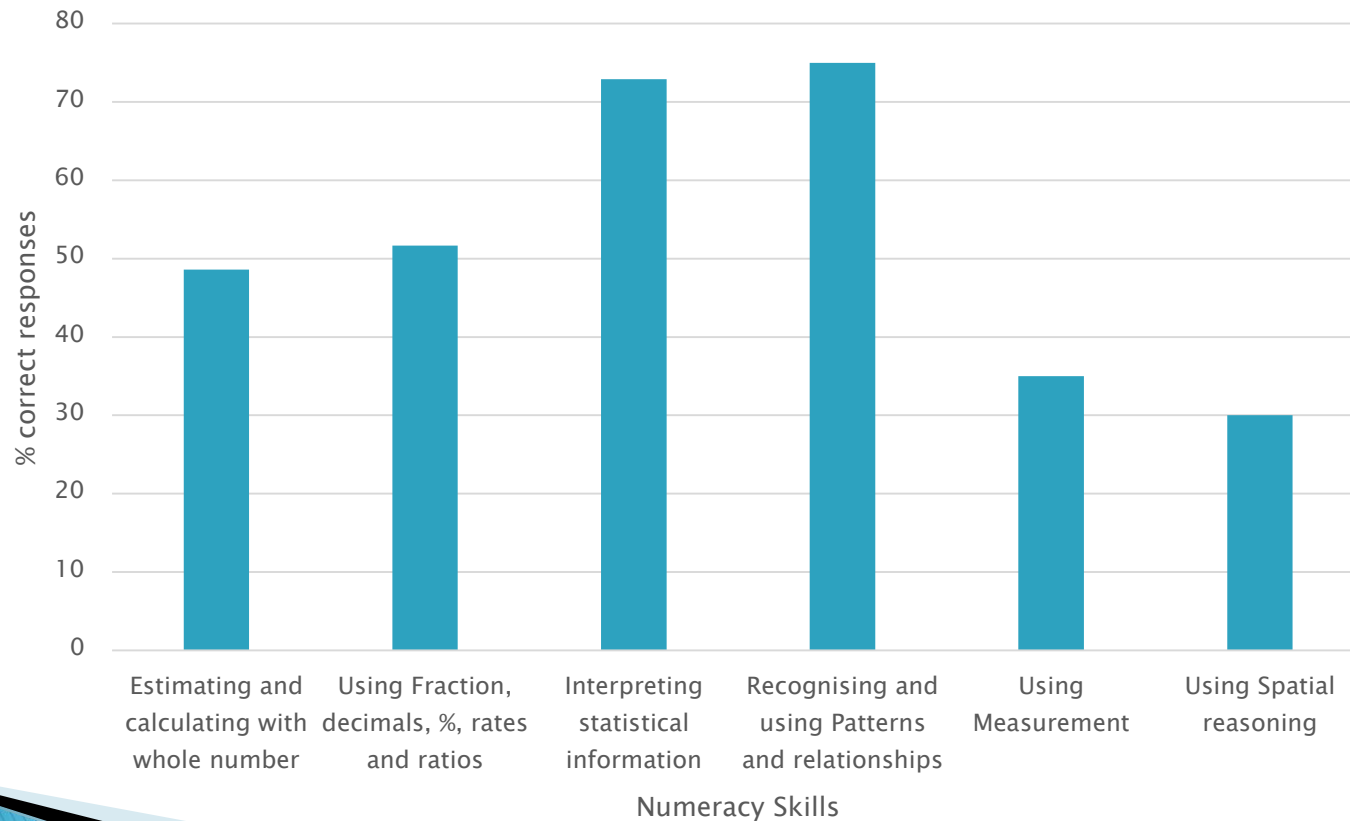


Stage Two of the Journey: Pre-test



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Pre-Data % of student responses that were correct



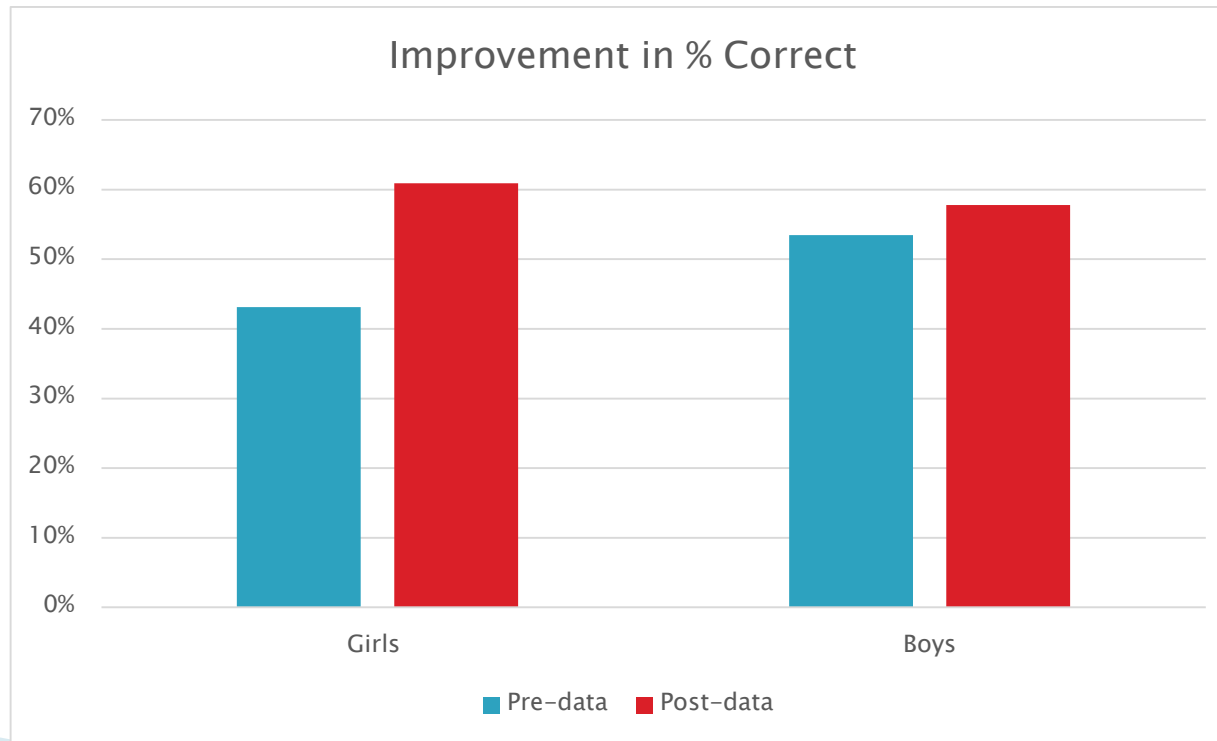


Stage Three of the Journey: Raising awareness

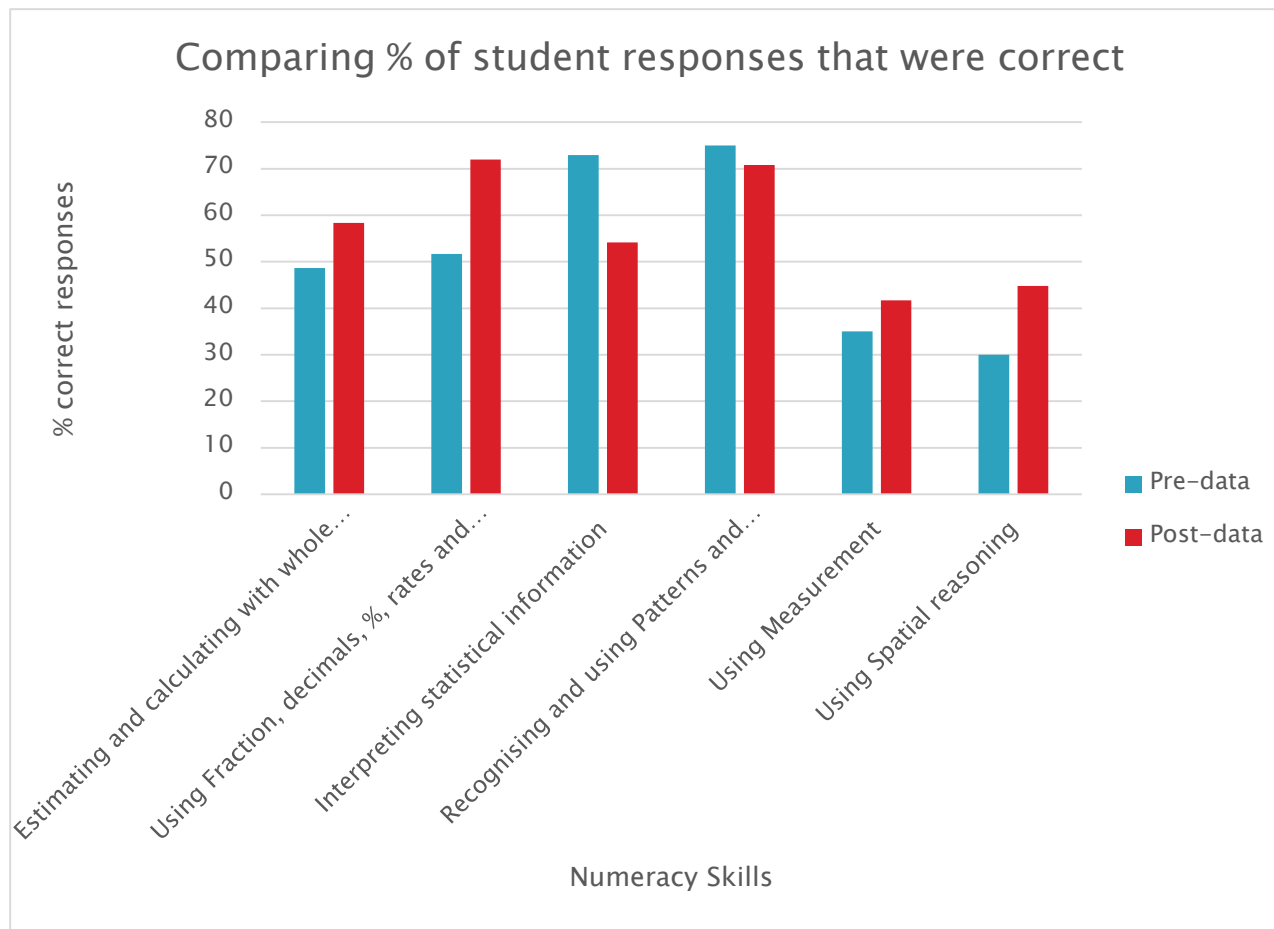
- ▶ Teacher...
 - modelled visual and spatial reasoning within the classroom
 - ensured that it was covered across the curriculum

- ▶ Students...
 - drew and cut out angles of a triangle to prove that they added up to 180°
 - physically transformed 2D shapes on a Cartesian plane
 - measured physical objects within the classroom and used there results to find solutions
 - drew and assembled nets of 3D shapes

Stage Four of the Journey: Post-test



Summative Findings





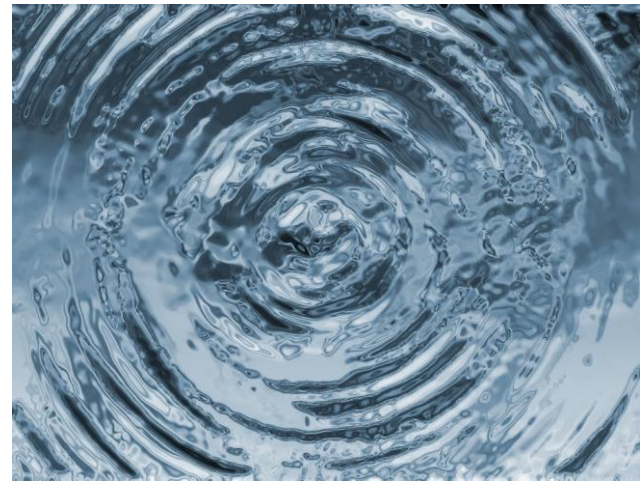
Reflection

▶ Successes

- Learning journey
- The data revealed the significant impact that it had on student numeracy skills, in particular for the girls.

▶ Challenges

- Time





Future Steps

- ▶ Continue to raise awareness
- ▶ Share with colleagues
- ▶ Take it further into the high school as we continue to expand
- ▶ Provide students with a good foundation for learning





Useful Resources

- ▶ Australian Curriculum, Assessment and Reporting Authority (2018) *General Capabilities in the Australian Curriculum*, Retrieved from <https://www.australiancurriculum.edu.au/f-10-curriculum/general-capabilities/numeracy/>
- ▶ Cheng, Y. L. & Mix, K. S. (2012). *Spatial training improves children's mathematics ability*. *Journal of Cognition and Development*. 15(1), p. 2-11
- ▶ Council of Australian Governments 2008, *National Numeracy Review Report*, Commonwealth of Australia, Barton, ACT
- ▶ Goos, M., Dole, S. & Geiger, V. (2012). Numeracy across the curriculum. *Australian Mathematics Teacher*. 68. 3-7.