

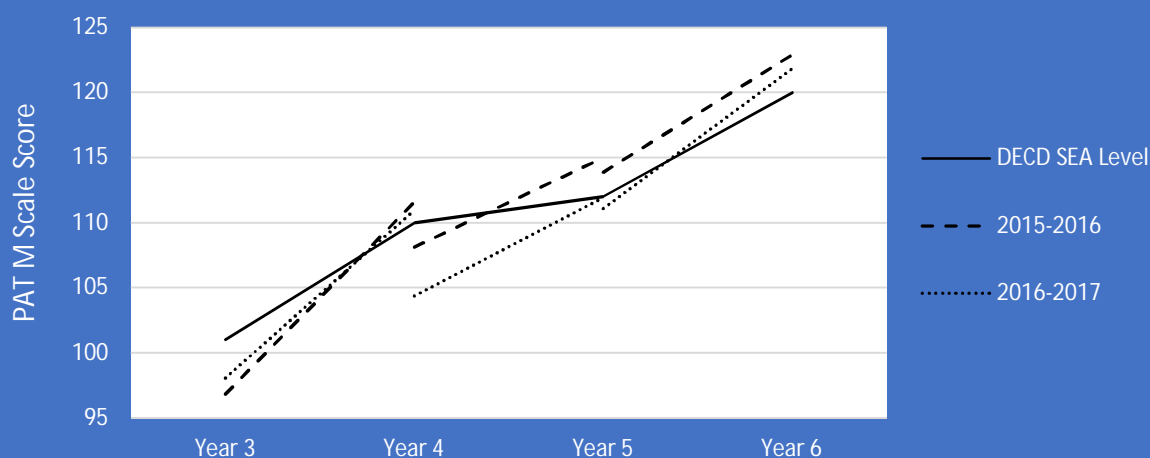
# Intervention that works

## Using conceptual change to fix misconceptions in mathematics for good Two-day professional learning workshop with Tierney Kennedy

Over the two-year research project, the lowest 20% of students across six schools gained an **additional 12 months of mathematics** over and above the department expectations for every year of teaching, as measured using PAT M. In two years, students progressed nearly four and a half years in mathematics.



Actual vs. Expected Learning Gains on PAT M Testing, for 2015-2016 and 2016-2017 across Six Schools



### When students fall behind in mathematics, it can be difficult to know what to do.

This workshop provides **real answers** to some of the most challenging parts of teaching, backed up by improvement data from both PAT maths and NAPLAN.

Involving real students from the very start, this course begins with a **live lesson** in which Tierney Kennedy diagnoses and fixes misconceptions in key number concepts using conceptual-change questioning. Teachers analyse both the understanding of the students and the questioning techniques employed before trialling the approach in real classrooms on the second day.

# Intervention that works

## Where and When

Dates: **21 + 22 JUNE 2018**  
Times: 8:30-3:30 both days  
Venue: **Baldavis Secondary College**  
**Stillwater Drive, Baldavis WA 6171**  
Cost: \$495 including: catering, training manual, all training materials to use with your own staff and two of the *Fixing Misconceptions* books



Register at this link:

<https://www.backtofrontmaths.com.au/event/intervention-that-works-two-day-pl-workshop-baldivas-secondary-college-wa>

Limit of 40 participants for each course.

## Course Outline

8:00	Registration and resource distribution, for an 8:30 start.
8:30-10:00	Introduction to the approach, including effectiveness of common intervention strategies, and gathering of participant questions and concerns
10:00-11:00	Demonstration lesson
11:00-11:30	Morning tea and networking
11:30-1:00	Diagnosing misconceptions in Quantity, Partitioning and Place Value (particularly number sense)
1:00-1:30	Lunch and networking
1:30-2:30	Diagnosing misconceptions in Multiplicative Thinking and Proportional Reasoning (particularly Fractions, Decimals and Percent)
2:30-3:30	Analysis of the conceptual change questioning used in the demonstration lesson
8:30-9:30	Planning of an intervention lesson in groups
9:30-10:30	Implementation of intervention lesson with students by teachers; Leaders stay with Tierney to do data analysis
10:30-11:00	Reflection, debrief and gathering of new questions
11:00-11:30	Morning tea and networking
11:30-1:00	Implementing intervention while still teaching everyone else: lesson structuring, appropriate grouping, extension for top students and getting everything done.
1:00-1:30	Lunch and networking
1:30-2:30	Developmental sequencing: ordering your year so that more maths sticks
2:30-3:30	Measuring and tracking student progress

## About the trainer:

Tierney Kennedy consults with Education Departments, Mathematics Associations and schools throughout Australia to improve student results. She is renowned for her practical approach and research-based strategies, as well as for significantly improving the NAPLAN and PAT-M performance of schools around Australia. Tierney is also the author of the *Back to Front Maths* series.