

## Beachside South TPL Mathematics Project 2010

### Teacher Confidence and Competence Survey

In 2010, 133 teachers were surveyed across the Beachside South Cluster to determine individual confidence and competence in the teaching of mathematics. The cluster's response is presented below with an analysis. The Survey Monkey website was used to collect and collate the data.

The data presented will be used as the Cluster's Base Line Data. It is anticipated that the survey will be offered at the same time next year.

#### Beachside South Cluster Schools:

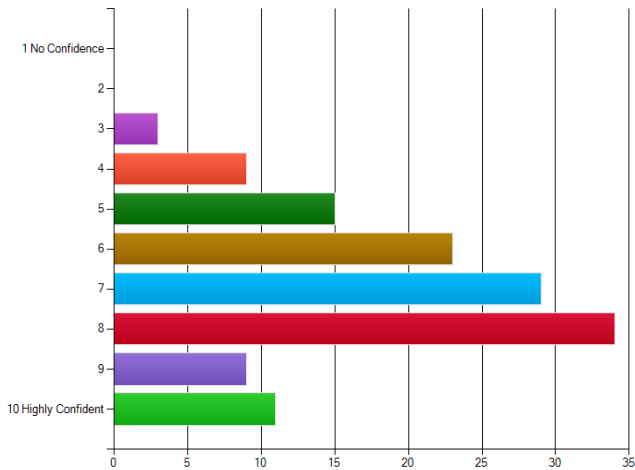
1. Beaumaris P.S.
2. Beaumaris North P.S.
3. Black Rock P.S.
4. Cheltenham P.S.
5. Sandringham P.S.
6. Sandringham East P.S.

# SURVEY QUESTIONS

1. What primary school do you teach at?
2. In which area do you teach?
3. How confident would you feel in teaching mathematics at any year level (P-6)?
4. How confident do you feel teaching mathematics at your current year level?
5. How confident do you feel in your ability to address the needs of low-performing students?
6. How confident do you feel in your ability to address the needs of high-performing students?
7. How confident do you feel in your ability to engage students 'working mathematically'?
8. How confident do you feel that your assessment strategies are adequate?
9. How often do you use data from assessment to guide your teaching?
10. How often do your students work in groups OR pairs in mathematics lessons?
11. How often do you put the mathematical ideas you teach into real life situations?
12. How much do you enjoy teaching mathematics now?
13. Which aspects of your mathematics teaching would you most like to improve?
14. What has helped you gain confidence in your mathematics teaching?

# QUESTION 3 and 4

How confident would you feel in teaching mathematics at any year level (P-6)?

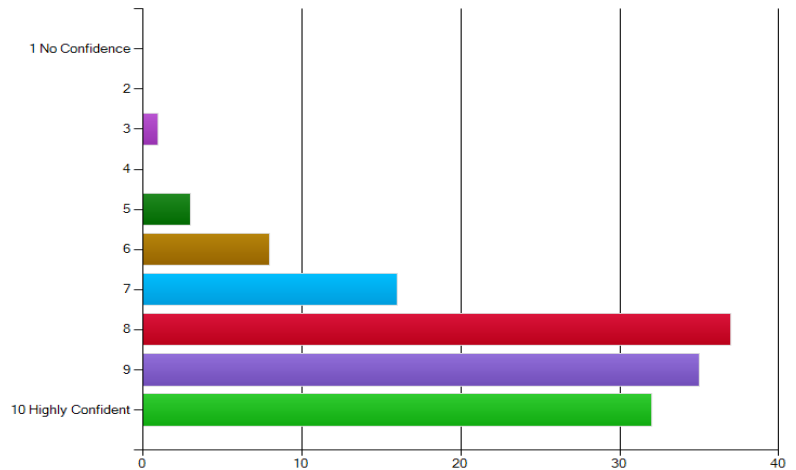


40.7% ranked at 8 or above

39.1% ranked at 6 or 7

20.4% ranked 5 or below

How confident do you feel teaching mathematics at your current year level?



78.7% at 8 or above

18.2% ranked at 6 or 7

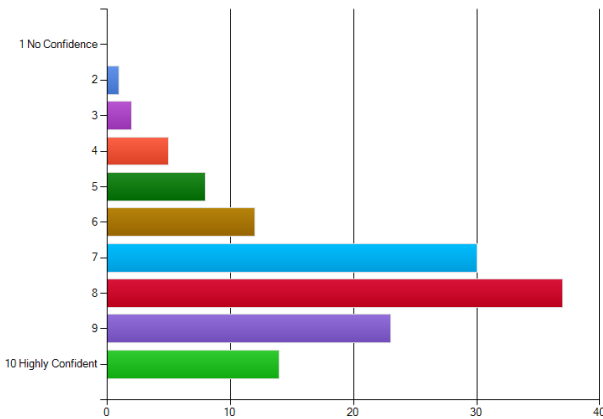
3.1% ranked 5 or below

## ANALYSIS

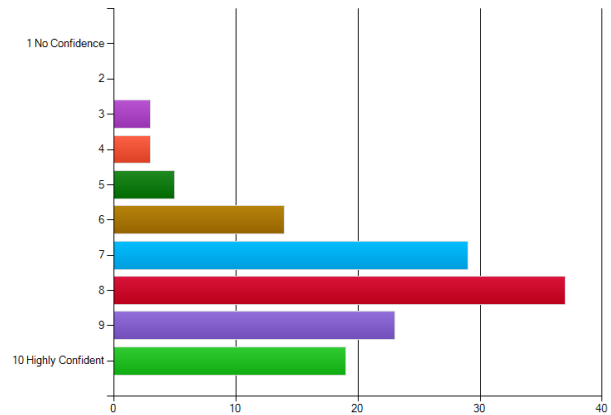
- Teachers are more confident at teaching at their 'current year level' than at 'any year level'.

# QUESTION 5 AND 6

How confident do you feel in your ability to address the needs of high-performing students?



How confident do you feel in your ability to address the needs of low-performing students?



78.7% ranked 8 or above

59.4% ranked 8 or above

18.2% ranked 6 or 7

32.3% ranked 6 or 7

3.1% ranked 5 or below

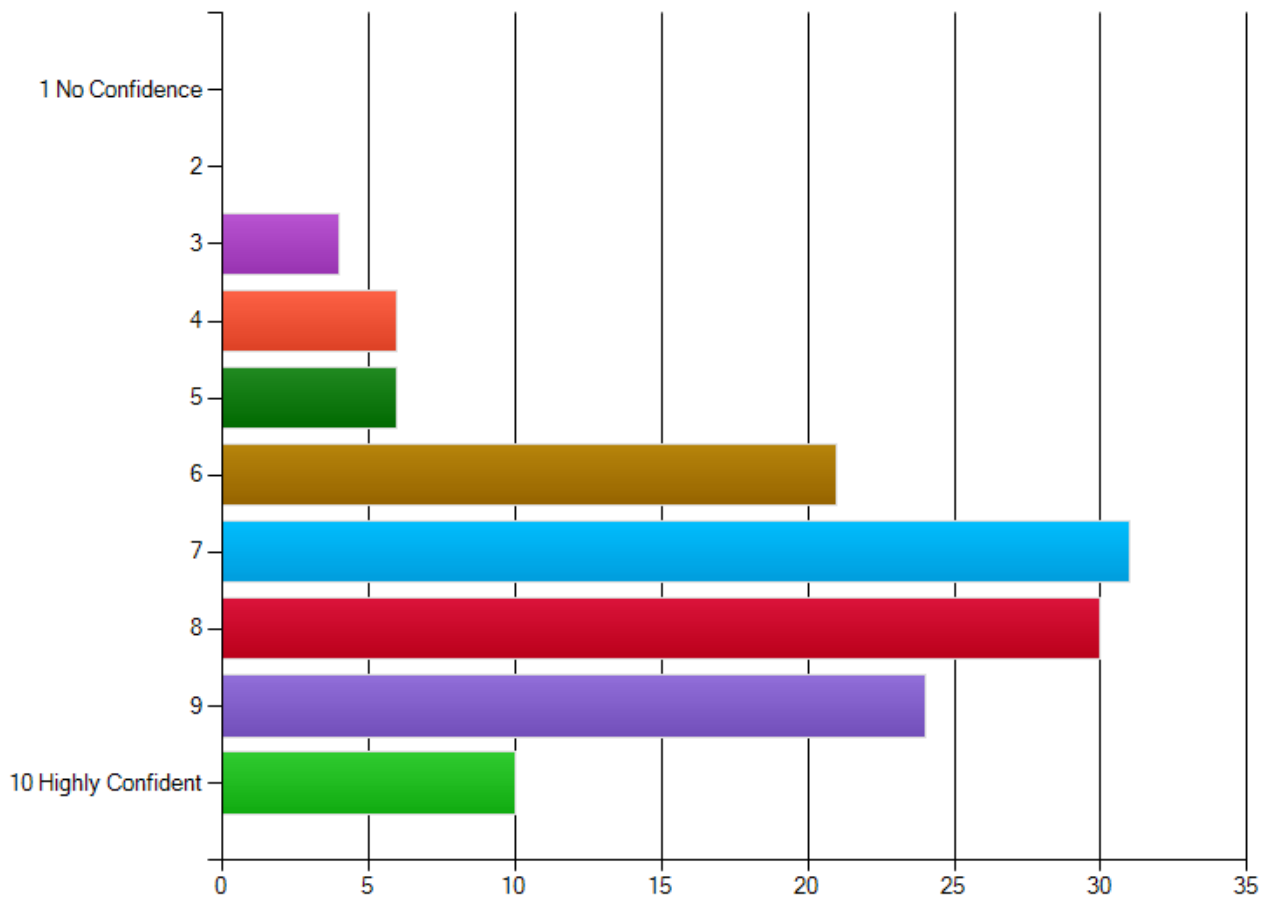
8.3% ranked 5 or below

## ANALYSIS

- Generally, teachers are confident in addressing the needs of students of all abilities.
- Teachers are more confident in teaching high-performing students than low-performing students.
- One third of teachers surveyed are only moderately confident in addressing the needs of low-performing students.

# QUESTION 7

How confident do you feel in your ability to engage students 'working mathematically'?



48.5% ranked 8 or above

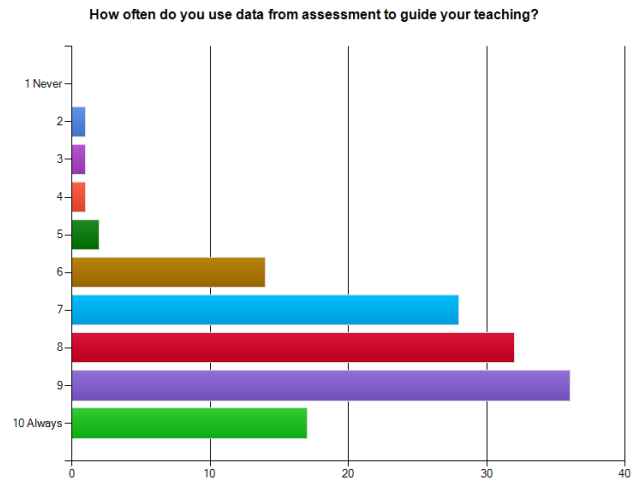
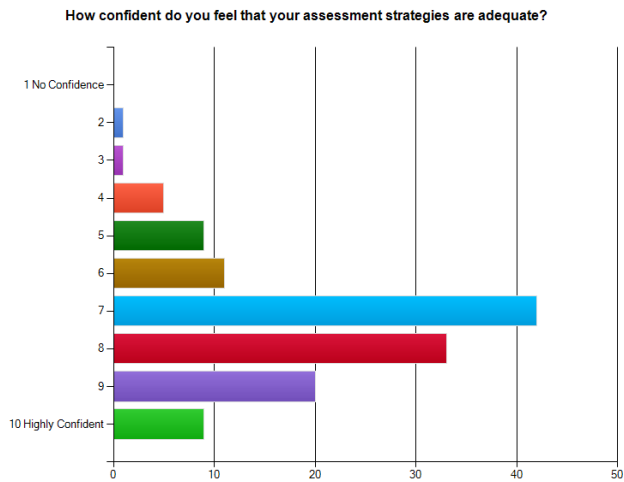
39.5% ranked 6 or 7

12% ranked 5 or below

## ANALYSIS

- More than one half of teachers surveyed have some concerns in engaging students to 'work mathematically'.

# QUESTION 8 AND 9



47% ranked at 8 or above

40% ranked at 6 or 7

13% ranked 5 or below

65% ranked at 8 or above

32% ranked at 6 or 7

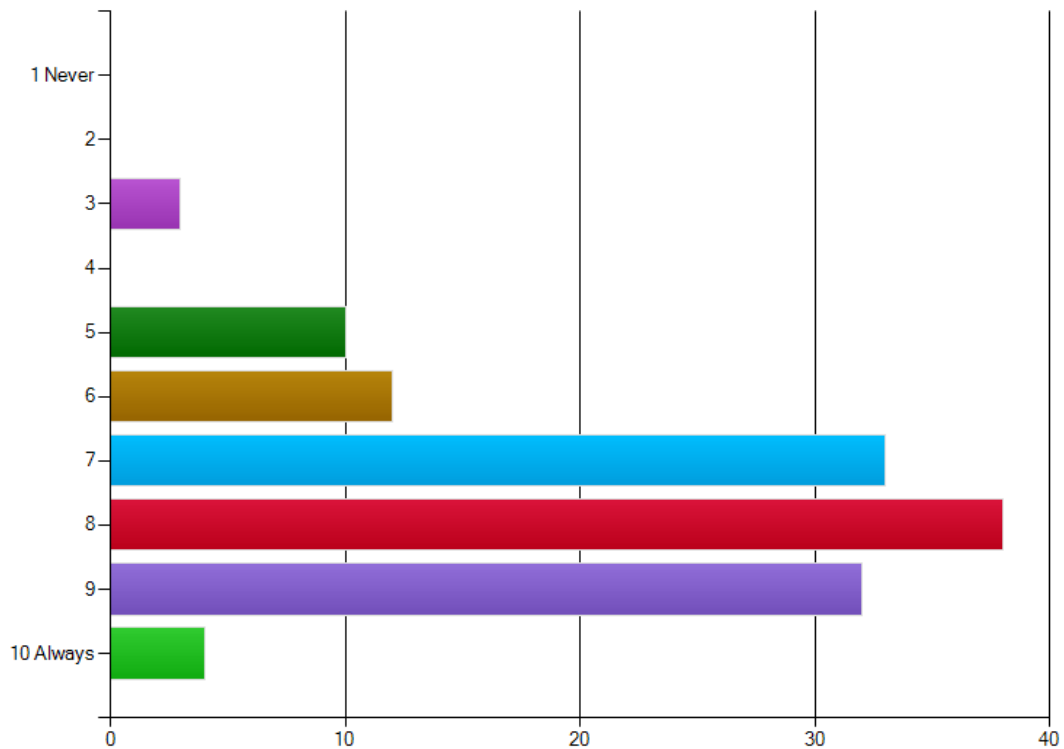
3% ranked 5 or below

## ANALYSIS

- 72% of teachers are confident that their assessment strategies are adequate.
- 35% of teachers are not regularly using assessment to guide their teaching.

# QUESTION 10

How often do your students work in groups OR pairs in mathematics lessons?



3% indicated they 'always' use group or paired groups

78 % indicated they 'mostly' use group or paired groups

16.7 % indicated they 'sometimes' use group or paired groups

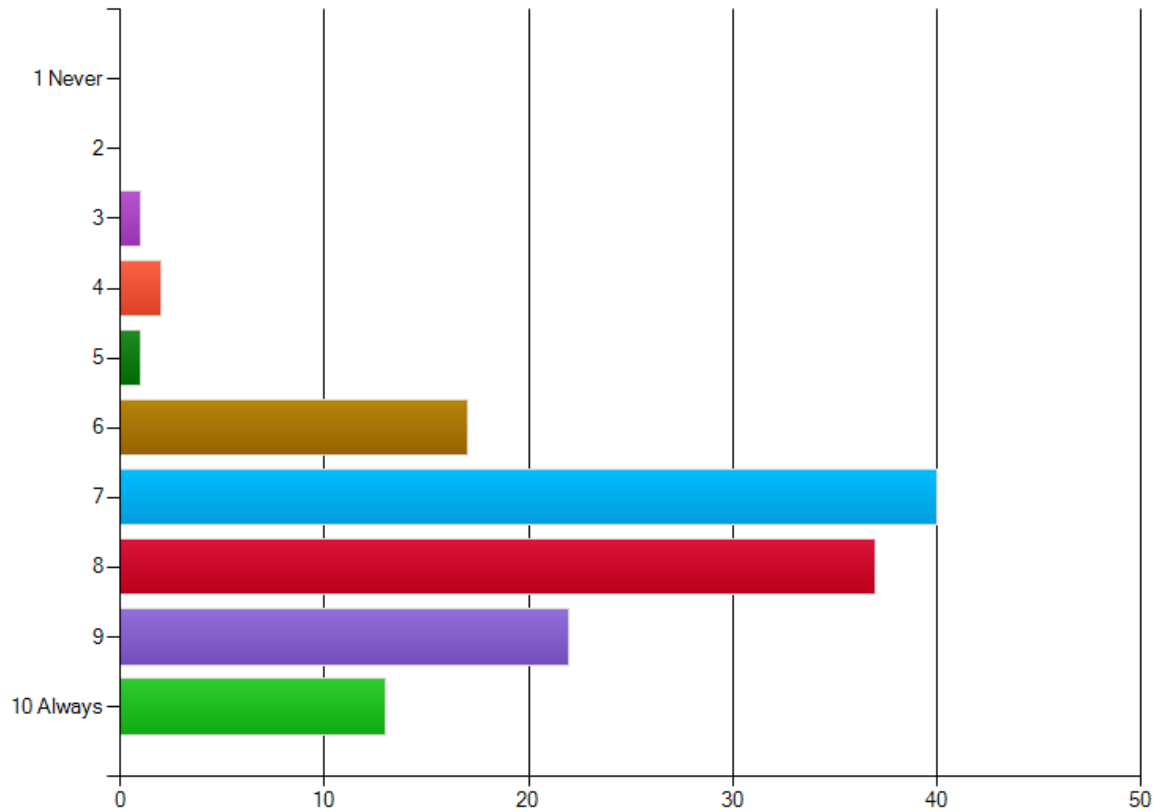
2.3% indicated they 'rarely' allow students to work in group or paired groups

## ANALYSIS

- 81% are consistently using collaborative situations that involve the use of groups and/or pairs during math lessons.

# QUESTION 11

How often do you put the mathematical ideas you teach into real life situations?



54% ranked 8 or above

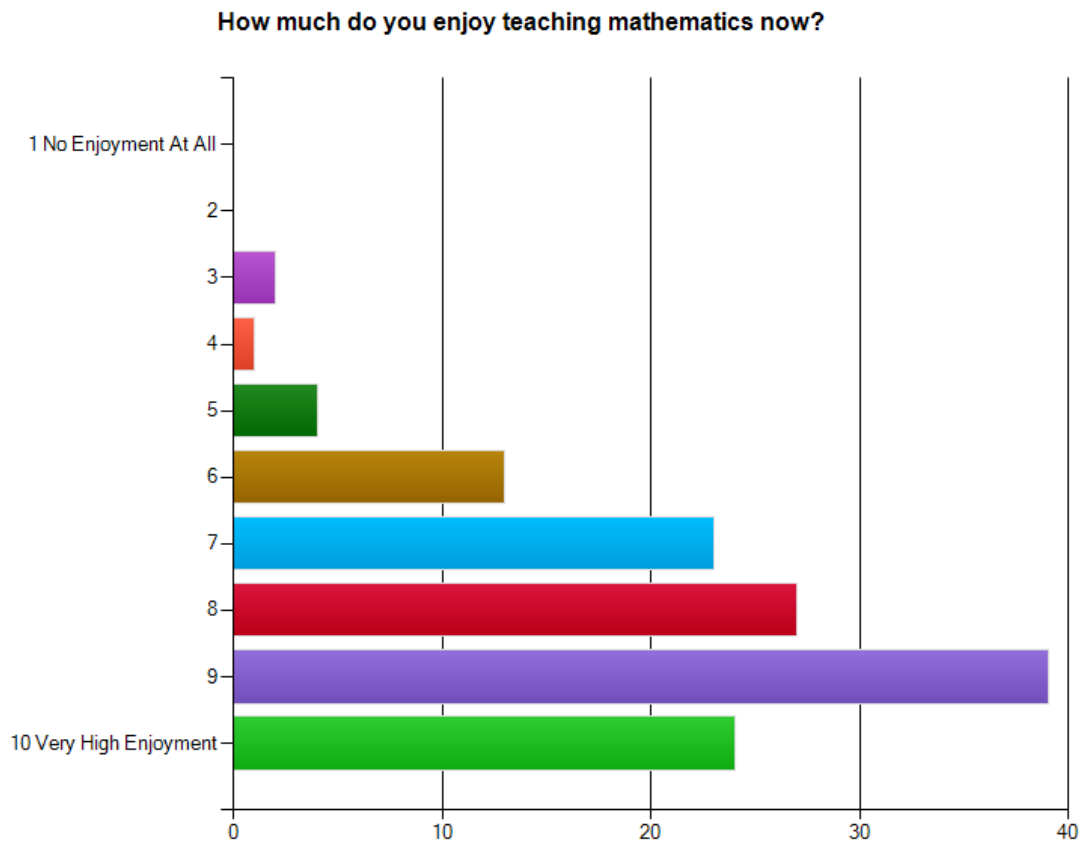
42.9% ranked 6 or 7

3.1% ranked 5 or below

## ANALYSIS

- Over 95% of teachers use mathematical concepts in real life situations.

# QUESTION 12



67.6% ranked at 8 or above

27.1% ranked at 6 or 7

5.3% ranked 5 or below

## ANALYSIS

- The survey indicates that 94.7% of teachers enjoy teaching mathematics.

## QUESTION 13

Which aspects of your maths teaching would you like to improve?

	<b>Response</b>	<b>Number</b>
1	Use of assessment	38
2.	Accelerating students	29
3.	Helping under achievers	16
4.	Providing problem solving/Open-ended activities	16
5.	Relating maths to real-life	14
6.	Organising group work	14
7.	Incorporating I.C.T.	11
8.	Engaging students (making maths exciting)	11
9.	Using concrete materials	11
10.	Differentiation of Curriculum	7
11.	Understanding links between Levels	5
12.	More planning time	3
13.	More reflection time	3
14.	Common language	3
15.	Time management	2
16.	More time for maths	2
17.	More new/fun games	2
18.	Measurement activities	2
19.	Fraction activities	2
20.	More/better equipment	2
21.	Space activities	1
22.	Perimeter/area activities	1
23.	Multiplication activities	1
24.	3D shapes activities	1
25.	Structures in maths	1
26.	Streaming	1
27.	Resources	1
28.	P.D.	1
29.	Understanding content	1
30.	Early Years methods	1
31.	Working in teams	1
32.	Reflection time	1
33.	Current methods	1

### **ANALYSIS**

- The results indicate that teachers want specific assessment tasks to identify individual learning requirements at both ends of the bell curve.

# QUESTION 14

What has helped you gain confidence in your maths teaching?

	<b>Response</b>	<b>Number</b>
1.	Professional Development	62
2.	Colleagues	55
3.	Experience/Familiarity with Year level	35
4.	Planning	17
5.	Resources	15
6.	Thinking of how to engage students and making tasks relevant	11
7.	Being mentored	11
8.	Observing	10
9.	Team teaching	10
11.	Literature/reference material	10
12.	Enjoy mathematics	9
13.	Results and reactions of students	8
14.	Practical assessment resources	8
15.	Technology	8
16.	Using different approaches/strategies	7
17.	Using data (NAPLAN etc) for assessment	7
18.	Trial/error	7
19.	Content (how/sequence/logic)	7
20.	Teacher ability/good at maths	5
21.	Student feedback	5
22.	Cater and meet student needs	5
23.	Being taught well or modelled by others	4
24.	Open ended questions	4
25.	Using hands on activities	4
26.	Having a go/trying new things	4
27.	Understanding learning styles	4
28.	Knowledge of range of teaching methods	3
29.	Student reflection	3
30.	Scaffolding assessment	2
31.	Preparation	2
32.	On line assessment	2
33.	Staff reflection	2
34.	Timing of teaching	1
35.	Community approval	1

## **ANALYSIS**

- The results indicate that Professional Development and learning with colleagues assists teacher confidence.
- Teaching experience and content knowledge positively impacts teacher confidence.

# ANALYSIS SUMMARY

- Teachers are more confident at teaching at their ‘current year level’ than at ‘any year level’. Generally, teachers are confident in addressing the needs of students of all abilities.
- Teachers are more confident in teaching high-performing students than low-performing students.
- One third of teachers surveyed are only moderately confident in addressing the needs of low-performing students.
- More than half of teachers have some concerns in engaging students to ‘work mathematically’.
- 72% of teachers are confident that their assessment strategies are adequate.
- 35% of teachers are not regularly using assessment to guide their teaching.
- 81% are consistently using collaborative situations that involve the use of groups and/or pairs during math lessons.
- Over 95% of teachers use mathematical concepts in real life situations.
- The survey indicates that 94.7% of teachers enjoy teaching mathematics. The results indicate that teachers want specific assessment tasks to identify individual learning requirements at both ends of the bell curve.
- The results indicate that Professional Development and learning with colleagues assists teacher confidence.
- Teaching experience and content knowledge positively impacts teacher confidence.

# RECOMMENDATIONS

- Targeted intervention is required to address individual student’s needs, especially at the lower end of the bell curve.
- Teachers need to develop a greater understanding of ‘Working Mathematically’
  - What does ‘Working Mathematically’ mean?
  - How do I implement the strand in my weekly work program/term overview?
  - What types of assessment tools are available?
- All schools in the Beachside Cluster to administer the Scaffolding Numeracy Assessment, identify student Zones of Proximal Development and use the appropriate targeted intervention to address student needs.
- Professional development for teachers to gain an understanding of ‘Developing the Big Ideas in Number’.