



## TEACHER SURVEY QUESTIONNAIRE 2007

All of your answers will be treated in strictest confidence. We are bound by the Monash University Human Research Ethics Committee to ensure that absolutely no information you provide can be relayed to anyone, including schools, principals and employers. You may withdraw from the process at any time and all data you have provided will be destroyed.

### Part A: BACKGROUND TO TEACHING

A1. Your Name: .....

A2. School: .....

A3. School Phone Number: .....

A4. Email address: .....  
(the one you use most regularly)

A5. Mobile: .....  
(if you are willing)

A6. What year level(s) is the class(es) that you are teaching as part of your involvement in the project? .....

A7. How many years have you been teaching? : .....

A8. Not including 2007, how many years have you taught mathematics at this level? .....

A9. List your qualifications:  
.....  
.....  
.....

A10. How much structured professional learning about mathematics teaching did you undertake in the last 12 months? (*tick one box*)

None

A session or two

About a day

Many days



**Part C: PLANNING AND TEACHING MATHEMATICS**

**C1.** How are the topics and sequence of topics for mathematics chosen at your school? (*Tick one*)

- Someone else makes the plan and gives it to us     The teachers decide together     I decide for myself

**C2.** Indicate how often the following describe how you plan your mathematics units of work

	Hardly Ever	Now and Again	Quite Often	Nearly Always
a. Make a list of interesting relevant activities and arrange them into the teaching sequence	1	2	3	4
b. Look at particular content goals (using VELs or similar) and work out how students might learn them	1	2	3	4
c. Follow the sequence in the textbook	1	2	3	4
d. Follow the sequence in the textbook but add in some other activities for variety and student interest	1	2	3	4

e. Write any other ways you plan your mathematics units here, and how often.

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**C3.** Indicate how often the following describe how you plan your individual mathematics lessons

	Hardly Ever	Now and Again	Quite Often	Nearly Always
a. Make a list of interesting relevant activities and arrange them into the teaching sequence	1	2	3	4
b. Look at particular content goals (using VELs or similar) and work out how students might learn them	1	2	3	4
c. Follow the sequence in the textbook	1	2	3	4
d. Follow the sequence in the textbook but add in some other activities for variety and student interest	1	2	3	4

e. Write any other ways you plan your mathematics teaching here, and how often.

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**C4.** Indicate how often the following stops you from teaching mathematics as well as you want to.

	Hardly Ever	Now and Again	Quite Often	Nearly Always
a. I don't have enough time to plan properly	1	2	3	4
b. The curriculum is too crowded	1	2	3	4
c. There are too many student in the class	1	2	3	4
d. There are too few useful resources available	1	2	3	4
e. As soon as the work gets difficult, the students give up	1	2	3	4
f. The students are not interested in learning	1	2	3	4
g. The students do not seem to remember anything	1	2	3	4
h. The students did not learn the work in previous years	1	2	3	4
i. The spread of abilities is large	1	2	3	4
j. Frequent interruptions to the regular program	1	2	3	4
k. Student absences	1	2	3	4

l. Write any other restrictions on your mathematics teaching here and how often they interfere.

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 .....

**C5.** On average, how long do you anticipate spending on planning each maths lesson? (tick one box)

- < 10 mins       10 to 20 mins       20–30 mins       > 30 mins

**C6.** The following is a description of an idea that might be used as the basis of a lesson.

Which is bigger,  $\frac{2}{3}$  or  $\frac{201}{301}$ ?

a. If you developed a lesson based on this idea, what mathematics would you hope the students would learn?

.....  
 .....  
 .....

b. Describe, briefly, a lesson you might teach based on this idea

.....  
 .....  
 .....  
 .....  
 .....

c. What might make teaching this lesson difficult?

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d. How would you gauge if the lesson was successful?

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**C7.** In what percentage of your lessons could the main activity be described as something like the following: (*rough estimates are fine, but they should add to 100%*)

**%**

<p><b>a.</b> I give a planned explanation of a new skill or concept, the students work on examples, we correct their work together (e.g., Showing how to find the area of a circle.)</p>	
<p><b>b.</b> I use an interesting model or technique that illustrates a mathematical principle, and the students work on activities associated with the use of the model or technique (e.g., Showing how the area of a circle is less than four square radiuses.)</p>	
<p><b>c.</b> The class works on interdisciplinary tasks, involving mathematics and some other curriculum area as well, and the students write a report (e.g., Graphing a character's movement in a novel, or working out relative prices of items in Ancient Civilizations.)</p>	
<p><b>d.</b> A non-mathematical realistic context (e.g., sport, cars, shopping) is used to illustrate a mathematics concept, and students work on problem(s) based on the context.</p>	
<p><b>e.</b> I pose an open-ended problem, or investigation, and the students work on the problem, with class discussion and teaching at the end of the lesson (e.g., For a given perimeter of a rectangle, what might be the area?)</p>	
<p><b>f.</b> The students play a game that illustrates some mathematical concept, then we discuss the mathematics concepts included in the game (e.g., Prizes for certain dice roll combinations.)</p>	
<p><b>g.</b> The students do worksheets practising skills or procedures that they have learned previously.</p>	
<p><b>h.</b> Students move around the school to collect data or engage in some outside activity to help understand and explore mathematics concepts.</p>	

**i.** If there are other important ways you structure your mathematics lessons, please write a description of what you do and what percentage of your lessons would be spent on it.

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## Part D: CHARACTERISTICS OF THE STUDENTS

**D1.** In your experience, what percentage of your mathematics students could be described as the following?

(each line is independent of the others and don't need to add to 100%)

%

a. They seek success but only on tasks with which they are familiar	
b. They associate getting smarter with trying harder	
c. They avoid or give up quickly on challenging tasks	
d. They discourage each other from trying too hard or appearing to be too smart	
e. They connect effort with success and take pride in successful effort	
f. When experiencing difficulties, they seem to lose confidence in themselves	
g. They seem to believe they are as intelligent now as they will ever get	
h. They remain focused on learning skills even when challenged	
i. They are self motivated to learn	
j. They try to do their best at mathematics	
k. They plan out how they will tackle maths problems	
l. They connect trying hard now to increasing their opportunities in the future	
m. They learn from their mistakes	
n. They contribute to class discussions	
o. They listen when they should be listening	
p. They prefer mathematics to be realistic	
q. They always, or nearly always, do their homework	

**D2a.** Pick the year level which you teach most for mathematics, write it here ..... and complete the table below for this one year level

The following are some extracts from the Mathematics Progression Points for Level 3/4. What percentage of your students do you think could do these well ...

... at start of  
this year (%)

... at end of  
this year (%)

<b>b.</b> Students use decimals, ratios and percentages to find equivalent representations of common fractions (e.g., $\frac{3}{4} = \frac{9}{12} = 0.75 = 75\% = 3:4 = 6:8$ ).		
<b>c.</b> They add, subtract, and multiply fractions and decimals (to two decimal places) and apply these operations in practical contexts, including the use of money.		
<b>d.</b> They divide fractions using multiplication by the inverse		

**THANK YOU FOR YOUR TIME**