ELEMENT 4.4

Domain 4 - Personalise and Connect Mathematics Learning

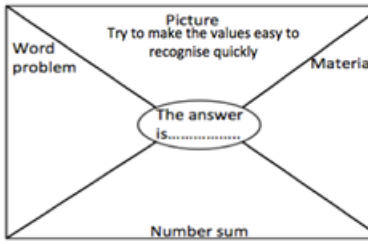
# Element 4.4 - Communicate learning in multiple modes

The following suggestions for practice are extracts from the 'Transforming Tasks' module on the Leading Learning resource:

**Strategy** From Information to Understanding

**Technique** Many ways of knowing: Ask students to construct general rules by identifying patterns.

| Level | Before | After |
|---|---|---|
| Primary | 1. 3 + 5<br>2. 4 + 7<br>3. 2 + 4<br>4. 9 + 5<br>5. 11 + 5<br>6. 4 + 9 etc | 1. Three girls and five boys were at a party. How many children were at the party?<br>2. 4 + 7<br>3.  <br>Represent each problem on the think board, in a picture, using materials, in a number sum and in a word problem, and write the answer in the middle. You may do the tasks in any order.<br>*Reference:*<br>This think board is from the 'Maths for Learning Inclusion' resource, but similar versions can be produced for any topic. |
| Secondary | Calculate:<br>a. 2/5 + 3/7<br>b. 7/9 – 2/5<br>c. 3/4 x 1/3<br>d. 5/9 ÷ 1/3 | 2/5 + 3/7 7/9 – 2/5 3/4 x 1/3 5/9 ÷ 1/3<br>For each of the fraction questions above:<br>• Use any appropriate numerical process to calculate solutions to the questions.<br>• Create a diagram or a physical representation that would support you to calculate the solution or convince someone (or yourself) that your solution is correct.<br>• Write a word problem/describe a situation in which this calculation could be relevant. |




**How do you think the technique Many ways of knowing might support *Element 4.4 - Communicate learning in multiple modes?***

There are many ways to articulate this relationship. One response to this question has been provided on the next page.

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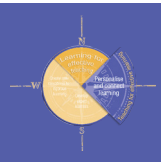

## How does the technique Many ways of knowing support *Element 4.4 - Communicate learning in multiple modes?*

Teachers can determine the different modes that are used to demonstrate 'many ways of knowing' or they could negotiate one or more modes with the students.

The authors of 'Adding It Up' state that , '…students often understand before they can verbalise their understanding' . With this in mind, if we provide opportunities for students to demonstrate their understanding in multiple ways (including multiple modes) we provide a range of levels at which students can enter the learning activity and demonstrate their understanding. For example, students may be able to demonstrate the addition of two fractions practically before they can articulate the importance of converting to equivalent fractions. Providing opportunities for students to show what they do know supports authentic assessment.