Media stories as a Numeracy Resource

- Madison (as cited by Schield 2008) argues that class materials which provide the contexts for the maths and statistics, among other things
  - must be authentic
  - source articles must be fresh
  - have few formal algorithms
  - have an emphasis on number sense

Media stories as a Numeracy Resource

• Collect human interest stories which have some numeracy impact (though these impacts may not always be visible to participants)
• Ensure the story is brief (perhaps 1+ pages)
• Check that the language is accessible to most of your adult learners.
• Invite your learners to share their own stories or perspectives (vote?).
• Unpack some of the figures
  – ask how these were derived
  - look for instances with proportional reasoning
• An example from 2008 . . .
Supermarket Fuel Discounting

- Regular shopper at the same place for over 15 years
- Always stops the checkout operator every $100, ‘visa’s up’, and gets a fuel voucher each time, usually 4c /litre
- Has several adult children drivers so shares the fuel discount vouchers among them
- One afternoon she’d spent $486, but she hadn’t used the “stop the operator every $100” routine.
- She got her voucher, was exiting and suddenly saw this week it was 10c/litre.
- So she asked for more (vouchers) at the service desk ...
At the Service Desk then the Store Manager

• Initial response was to say no, one voucher per customer
• Writer countered with
  - her 15 year history at the store,
  - spends at least $300 / week there,
  - so far her custom was $234,000 (how?)
  - potentially a $500,000 customer (how?)
• Another voucher emerged and two more later from the GM
Then to the author’s website

• Has 20,000 registered readers
• After airing the article on her site, she received 700 replies
• Replies were 2.5 to 1 in favour of her actions
• This enables us to promote some strategies for proportional thinking by posing:
  - what percentage replied?
  - how many people were for and against?
**Ratio / Proportion Tables - 1**

- With the percentage, some will know how to work 700 replies out of 20000

- Others may need a ‘leg up’ in understanding how ‘to do percentages’; a ratio table is one entry point, e.g. a knowledge of place value and multiplicative (dividing) thinking

<table>
<thead>
<tr>
<th>Replies</th>
<th>700</th>
<th>70</th>
<th>7</th>
<th>3.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total readers</td>
<td>20000</td>
<td>2000</td>
<td>200</td>
<td>100</td>
</tr>
</tbody>
</table>

- So a 3.5% ‘hit rate’ (apparently good in this field)
Ratio / Proportion Tables - 2

• With the ratio, some will have an algorithm to work out both for and against

• Again a ratio table could be an entry point,

<table>
<thead>
<tr>
<th></th>
<th>2.5</th>
<th>5</th>
<th>50</th>
<th>500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Against</td>
<td>1</td>
<td>2</td>
<td>20</td>
<td>200</td>
</tr>
</tbody>
</table>

• So 500 people were positive about the author’s stand while 200 were opposed

• Where do you stand?
The Lotto Winners?

• Won 17 Million (a quarter of the pool)
  - how big was the pool?
• Money had been part of a ‘party fund’
• Spent $34 from the party fund on a ticket
• Should they have split it in thirds or as a percentage of their contributions?
• Finally settled out of court though lawyers had been paid at least $2 Million by that stage.
The Bus Lane – Civic Sting?

- $150 fine if your car is in a designated bus lane
- Council has collected $4.2 Million over a year since the lanes began.
- Article states that 77 people per day have been ‘stung’. (How?)
- Drivers have had to estimate a distance of 50m from an intersection before they make a left turn (only some are marked)
- Revisiting this as they realise the sting is hurting!
Media stories as a Numeracy Resource

• We have found
  - that the brevity of the article is important for learner engagement
  - some tangents do emerge when people contribute and though these should be given air, some cut-off point is essential
  - adult learners do discuss and question the sense of number which is involved, among themselves, and how these might influence their own decision making
  - these provide teachers with an adult resource from most of their learners’ backgrounds (and expertise) and also creates useful starting points in topics (e.g. %), but don’t ‘overcook’ the resource