Building Teacher Efficacy in Numeracy through Formative Assessment

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A response to the growing problem in mathematical knowledge, attitude and disposition with Australia

The Adult Story!

Performance by Level (15-74 yos)

Proportions of persons in Literacy and Numeracy in PIAAC. Total Australian population aged 15-74 years.
2012-2013
Tracking key conceptual understandings in 6 High Schools
Attitudes and Beliefs as variables!

Under What conditions does size effect work?
Evidence around lack of understanding

This becomes the students ‘WHAT’

Recall multiplication facts up to $10 \times 10$ and related division facts (ACMNA075):

- count by fours, sixes, sevens, eights and nines using skip counting

- use mental strategies to build multiplication facts to at least $10 \times 10$, including:
  - using the commutative property of multiplication, e.g. $7 \times 9 = 9 \times 7$

- recall multiplication facts up to $10 \times 10$, including zero facts, with automaticity

- relate multiplication facts to their inverse division facts, e.g. $6 \times 4 = 24$, so $24 \div 6 = 4$ and $24 \div 4 = 6$

Most conceptual understanding and problem solving has gone
Procedural V Conceptual

Find the largest number using these 4 digits

<table>
<thead>
<tr>
<th>Year 3</th>
<th>92 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 5</td>
<td>98%</td>
</tr>
</tbody>
</table>

Find the third largest number using these 4 digits

<table>
<thead>
<tr>
<th>Year 3</th>
<th>42%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 5</td>
<td>57%</td>
</tr>
</tbody>
</table>

Rob Proffitt-White NCR: March 2015
2014: Evidence based: Gaps in capacity
The achievement standards?

- By the end of Year 3, students recognise the connection between addition and subtraction and solve problems using efficient strategies for multiplication. They model and represent unit fractions. They represent money values in various ways. Students identify symmetry in the environment.

2011-2013 National Partnership Findings
Data Tools and Data Literacy

Pre Post Testing Success
Size effects were measuring procedural only
Colourful charts and displays
Computer generated %, charts, graphs

Assessment Questions still procedural
Most were multiple choice/online
Proficiencies missing
Initial gains not sustained, often forgotten
SET UP A STATEWIDE LEARNING PLATFORM FOR ALL TEACHERS
North Coast Region Mathematics

Resources to support...

Developing confident, creative users and communicators of Mathematics.

- Australian Curriculum: Mathematics

Professor Peter Sullivan recently presented to teachers on the Sunshine Coast (14 July).

Teaching Mathematics

The WHAT

* AC - Content Strands
* AC - Proficiency Strands

Teaching Mathematics

The HOW

* Mental Warm Up
* Explicit Teaching

Assessment

* Policy Statement
* Diagnostic Assessment
* Formative Assessment
* Summative Assessment

Planning

* Whole School Planning
* Year Level Planning
* Assessment Planning
Warm ups

North Coast Region
Mathematics

Place Value
- Get_closer.doc 394KB
- Number Swap.doc 232KB
- Ladders.doc 226KB
- Maths.Mat.doc 807KB
- Hundreds Board Puzzle.doc 228KB
- One is a Snail.doc 1304KB
- One is a small cards.doc 125KB

Partition Party.doc 334KB
- Middle It.doc 210KB
- Change It.doc 216KB
- Three in a Row.doc 370KB
- 5-digit Draw.doc 187KB
- Place_Value_Beads.doc 502KB
- 101 and out.doc 217KB
- Rounding Radicals.doc 246KB

Operate / Calculate
- Shake and Drop.doc 250KB
- Wizards.doc 30KB
- String Sums.doc 220KB
- Secret Sums.doc 197KB
- Race to Ten.doc 264KB
- Oranges and Lemons.doc 186KB
- Nearest to 20.doc 1005KB
- Making it Balance.doc 220KB
- Mix n Match Equations.doc 205KB
- Dicey Equations.doc 224KB
- Clear the Deck.doc 26KB
- Clear the Deck board.doc 28KB

201-198
- Go Mental.First.doc 384KB
- Fifteens.doc 210KB
- Estimation Grid.doc 228KB
- Smaller Bigger.doc 150KB
- Cross Out Singles.doc 416KB
- Card Counting.doc 716KB

Working Mathematically
- Covers doc 214KB
- Covers board.doc 82KB
- Addition Cups.doc 709KB
- One is a Snail Ten is a Crab.doc 147KB
Diagnostic Tests
Pre and Post

YEAR 5: Term 1 Diagnostic

NAME ________________________________

1 to 1 Interview: Mental computation

<table>
<thead>
<tr>
<th>Relies on counting</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ask the student to multiply the following numbers: 5 x 7 and 9 x 4</td>
<td></td>
</tr>
<tr>
<td>Ask the student to add the following numbers: 24 + 30 + 46</td>
<td></td>
</tr>
<tr>
<td>Ask the student to subtract the following numbers: 35 - 20 and 81 - 39</td>
<td></td>
</tr>
</tbody>
</table>

Write a problem that would match this number sentence: 1.5 x 8 = [ ]

Shade in 0.10 of this shape

Shade in 1 tenth of this

Arrange these fractions from largest to smallest:

\( \frac{5}{8}, \frac{3}{4}, \frac{1}{2}, \frac{1}{4} \)

Mark needs to multiply these numbers together: 15 x 12

Can you show him how an efficient way to do it?

Can you show some different ways of representing this number? We have done one for you.

13.5

1 ten, 3 ones and 5 tenths

What value is shown by the arrow? ___

What number is 100 times larger than 250?

What number is 10 times smaller than 25?

If 5 x 10 = 50, then 0.5 x 10 = 0.50

Is this statement true or false?

Can you explain?

There are 503 students in a school and 50 students can fit onto a bus. How many buses will the school need for all the students to travel at one time? Show how you got your answer.
NCR Resources to support the development of quality teaching and learning
Tracking the HITS on the Learning Platform from 2012

Thousands

<table>
<thead>
<tr>
<th>Year</th>
<th>2013 S1</th>
<th>2013 S2</th>
<th>2014 S1</th>
<th>2014 S2</th>
<th>2014 S1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thousands</td>
<td>0</td>
<td>10</td>
<td>30</td>
<td>70</td>
<td>250</td>
</tr>
</tbody>
</table>
Encouraging initial data and subsequent scaling up
Aim of Success Team

We make mathematics enjoyable and accessible by all; teachers and students

Develop assessment literacy

Promote and instill assessment AS and FOR

Initiate and sustain an internal expert team

Make students instructional resources of their own learning
Student’s mathematical achievement is unlikely to improve without professional development focusing on mathematics content. (Telese, 2008)
10 visits per semester

Initiate Instructional Rounds

Leadership create strategic key team

Coach, mentor and collaborate

Build capacity to create resources

Initiate PLCs and school networks
PHASE A:  January 2014 – June 2014  
PHASE B:  July 2014 – December 2014  
PHASE C:  January 2015 – June 2015  
PHASE D:  July 2015 – December 2015  

Phase A and B are sustaining the momentum  

13 State High Schools  
3 P-12 Colleges  
22 State Primary Schools
Intended, Implemented, Attained

SULLIVAN: Understanding Mathematical Proficiencies
ASKEW: Traits of effective mathematics teachers
HATTIE: Visible learning
STACEY/ANDERSON: Problem Solving culture
FULLAN: Instructional Leadership
DuFour: Professional Learning Communities
MARZANO: High Reliability Schools: Level 3 GVC
BOALER: Positive Classroom Norms
DWECK: Fixed and Growth Mindsets
Creation of a short term diagnostic by key

### Year 7 Diagnostic Task – Term 2 (Pre)

<table>
<thead>
<tr>
<th>Name: ____________________________</th>
<th>Do not do anything in this column.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Write this in digit form:</strong></td>
<td></td>
</tr>
<tr>
<td>Two millions, two thousands and eight tens</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2. What fraction of the large shape below is shaded?</strong></td>
<td></td>
</tr>
<tr>
<td><img src="image1.png" alt="Image" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3. Write a word problem that could match the following equation:</strong></td>
<td></td>
</tr>
<tr>
<td>$1.5 \times 60 = 90$</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>4. Place an X on the number line to show the location of 1.4.</strong></td>
<td></td>
</tr>
<tr>
<td><img src="image2.png" alt="Image" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>5. Using your ruler, draw the next term in this pattern.</strong></td>
<td></td>
</tr>
<tr>
<td><img src="image3.png" alt="Image" /></td>
<td></td>
</tr>
</tbody>
</table>

### Year 7 Diagnostic Task – Term 2 (Post)

<table>
<thead>
<tr>
<th>Name: ____________________________</th>
<th>Do not do anything in this column.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Write the number that contains all of the following:</strong></td>
<td></td>
</tr>
<tr>
<td>Five thousands, three ones and six millions</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2. What fraction of the large shape below is shaded?</strong></td>
<td></td>
</tr>
<tr>
<td><img src="image4.png" alt="Image" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3. Write a word problem that could match the following equation:</strong></td>
<td></td>
</tr>
<tr>
<td>$2.5 \times 20 = 50$</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>4. Place an X on the number line to show the location of 0.5.</strong></td>
<td></td>
</tr>
<tr>
<td><img src="image5.png" alt="Image" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>5. Using your ruler, draw the next term in this pattern.</strong></td>
<td></td>
</tr>
<tr>
<td><img src="image6.png" alt="Image" /></td>
<td></td>
</tr>
</tbody>
</table>
A room has a perimeter of 24m.

Investigate how many different areas this room can have.

Enabler: Reminder of P and A
Extender: What is max/min area?
‘Same As’ Scales

How many scales can you design at your table groups? Feel free to share your ideas.

Enable: Use abacus, counters etc
Extend: Operation both sides.
Trial samples used to elicit levels of student understanding. Formulate a scale
Initiate ‘Visible Learning’ where students

Things I am good at: fractions/decimals, fractions.

Things I nearly get: multiples of ten.

Things I really need to work on: Place value, frac/decimal convert, number line, index laws, order of operations, fractions/decimals, decimals/number line, rates, ratio, percentage, mental strategies, distributive law, estimation/ratios, algebra and unitary method.
Ensuring School Assessment promotes the Mathematics Proficiencies

<table>
<thead>
<tr>
<th>Know about their learning &amp; can plan next learning steps with teacher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are active in their learning</td>
</tr>
<tr>
<td>Understand the assessment tools being used and what results mean</td>
</tr>
<tr>
<td>Understand the learning goals/intentions of the lesson</td>
</tr>
<tr>
<td>An self assess accurately against success criteria and know their next learning goal</td>
</tr>
<tr>
<td>Can peer assess against success criteria and give feedback based on the criteria</td>
</tr>
<tr>
<td>Can use SMART goals, then self monitor their progress</td>
</tr>
<tr>
<td>Can answer: WHERE AM I GOING, HOW AM I GOING, WHERE TO NEXT</td>
</tr>
</tbody>
</table>

What do we expect our students to learn?  
How will we know they are learning?  
How will we respond when they don’t learn?  
How will we respond if they already know it?
Students who experience skills-focused instruction tend to master them, but do not do well when tested on problem solving and conceptual understanding.

( Schoenfeld, 2007)
Data grids to inform teachers of intervention strategies.

We can create the appropriate -
culture
-teacher mindset
-student disposition
-open ended resources
to move more into the U2B
The NCR Mathematics Team are a result of longevity, ongoing PD and consistent investment - WE have endurance, leverage and readiness

- Passionate and Persuasive
- Reflective and Perceptive
- Coach, mentor, collaborator
- Innovative & Influential
- Engaging and Understandable
- Organised and Effective

In a position to effect change

- Exceptional Pedagogical Content Knowledge
- Exceptional Mathematical Content Knowledge
Student Disposition to Mathematics

- **Focus**
  - Enjoyment
  - Purpose
  - Understanding
<table>
<thead>
<tr>
<th>Number</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mathematics is an area I do well in</td>
</tr>
<tr>
<td>2</td>
<td>Mathematics is a subject that I am enthusiastic about</td>
</tr>
<tr>
<td>3</td>
<td>I see the relevance of mathematics to other subjects</td>
</tr>
<tr>
<td>4</td>
<td>I see the relevance of mathematics to the real world</td>
</tr>
<tr>
<td>5</td>
<td>In class we have opportunities to discuss our answers</td>
</tr>
<tr>
<td>6</td>
<td>My teacher explains mathematics in a way I can understand</td>
</tr>
<tr>
<td></td>
<td>It doesn't matter whether I use efficient or inefficient methods as long as you get the right answer in the end.</td>
</tr>
<tr>
<td>7</td>
<td>In my mathematics class we celebrate achievements</td>
</tr>
<tr>
<td>8</td>
<td>I am confident to raise my hand in my mathematics class</td>
</tr>
<tr>
<td>9</td>
<td>We learn mathematics by the teacher demonstrating an example and we keep practicing until we get it right.</td>
</tr>
<tr>
<td>10</td>
<td>I can see how the mathematics we are learning now connects to what I have learnt in previous years.</td>
</tr>
<tr>
<td>11</td>
<td>It is possible to do well in mathematics without having to reason or explain your answer</td>
</tr>
</tbody>
</table>
Raising Awareness of Project Intent

- Target Areas
  - Student Engagement
  - Problem Solving and Reasoning
- Contextualised Demos
- Collaborative Discussion
Key Team

- Identification of key staff to lead the agenda
- Development of own resources for use within the Faculty
  - Diagnostic Tests
  - Warmup activities to address misconceptions
- Diagnostic tests include identified core skills (individually identified for each cohort) to track from Year 7
- Warmup activities – open ended tasks based on Peter Sullivan research
YEAR 7 DIAGNOSTIC PRE-TEST
TERM 2

1. What is the depth of the water?

2. Lee paid for some chocolate frogs with a $10. If each chocolate frog costs 65 cents, and he received $6.75 in change. How many frogs did he buy? (Show your reasoning)

3. What fraction of the large shape below is shaded? Explain how you got your answer.

4. There were 23758 people at a football match. If one third of them supported the away team, approximately how many people supported the away team? Show how you got your answer.
Question 3
Wednesday, 5 November 2014 5:15 PM

3. What fraction of the large shape below is shaded? Explain how you got your answer.

![Hexagon with shaded section](image-url)
One fourth of a rectangle is shaded as shown below:

In the diagram below, the shaded part represents one fourth of another rectangle. Draw some of these rectangles.
Moderation and Discussion

- Diagnostic Tests moderated at Faculty level
- Identified common student misconceptions
Collection and Collation of Data

- Use of Remark software to quickly process student responses
- Data returned to teachers
  - Analysis and identification of misconceptions at a class level
  - Informed choice of warmups for each teacher
### Question 1
<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>*1</td>
<td>6</td>
<td>26.09%</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>4</td>
<td>15</td>
<td>65.22%</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>4.35%</td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>4.35%</td>
</tr>
</tbody>
</table>

### Question 2
<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>*1</td>
<td>3</td>
<td>13.04%</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>17.39%</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>30.43%</td>
</tr>
<tr>
<td>4</td>
<td>8</td>
<td>34.78%</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>4.35%</td>
</tr>
</tbody>
</table>

### Question 3
<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>*1</td>
<td>4</td>
<td>17.39%</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>4</td>
<td>17</td>
<td>73.91%</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>4.35%</td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>4.35%</td>
</tr>
</tbody>
</table>

### Question 4
<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>*1</td>
<td>8</td>
<td>34.78%</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>4.35%</td>
</tr>
<tr>
<td>3</td>
<td>8</td>
<td>34.78%</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>21.74%</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>4.35%</td>
</tr>
</tbody>
</table>

### Question 5
<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>*1</td>
<td>10</td>
<td>52.63%</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>15.79%</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>4</td>
<td>6</td>
<td>31.58%</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

### Question 6
<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>*1</td>
<td>9</td>
<td>47.37%</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>26.32%</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>26.32%</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

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**Legend:**
- Correct: Green
- Incorrect: Red
- Distractors Chosen More than Correct Answer: Yellow
Support for Teachers

- Resource Bank
- Numeracy Coach
- Development Time and Talking Time
Ongoing Support and Moderation

Key team meets once a term to:
- Peruse feedback from teaching staff
- Act on feedback to modify assessment tasks
- Develop further questions and warmup activities

Collaboration with another local high school to share and develop open ended tasks
LAN Program

- Literacy and Numeracy Program
- Conducted for Year 7 and 8 students
- Numeracy Program provides all students the opportunity to problem solve and reason
**LAN – OneNote Resource Bank**

**Week 1 - Measurement**
Monday, 8 December 2014

1. 5 Quick Questions - 5 minutes
2. NAPLAN Item Analysis - Q1 - 10 minutes
3. NAPLAN Item Analysis - Q2 - 10 minutes
4. Deconstructing Problem - 15 minutes
5. See Plan Do Check - Q1 - 20 minutes
6. See Plan Do Check - Q2 - 20 minutes

- 5 Quick Questions
- NAPLAN Item Analysis
- U2B - NAPLAN Item Analysis
- Deconstructing Problems
- U2B - Deconstructing Problems
- See Plan Do Check

**Weeks:***
- Week 2 - Measurement, 3D Shapes
- Week 3 - Measurement - 3D Shapes, Volume, Capacity
- Week 4 - 3D Objects
- Week 5 - Scale
- Week 6 - Time, Direction, Ratio and Proportional Reasoning
- Week 7 - Statistics
- Week 8 - Statistics
These triangles are not drawn to the same scale. Which one has an area of 36 square centimetres?

<table>
<thead>
<tr>
<th>Response</th>
<th>Proportion</th>
<th>Reasoning</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>26.3%</td>
<td>Students selecting this option may have incorrectly calculated the area of this triangle as base times height (6 x 6), forgetting that the formula required them to divide this by 2.</td>
</tr>
<tr>
<td>B</td>
<td>38.4%</td>
<td>Key</td>
</tr>
<tr>
<td>C</td>
<td>11.3%</td>
<td>Students selecting this option may have incorrectly calculated the area of this triangle as base times height (36 x 1), forgetting to divide by two. The fact that this is a familiar orientation of a right-angled triangle may have attracted some students to this option.</td>
</tr>
<tr>
<td>D</td>
<td>22.9%</td>
<td>Students selecting this option may have confused perimeter and area and selected it because the perimeter of this triangle is 36 cm.</td>
</tr>
</tbody>
</table>
Success

By exposing students to instant success, through the use of pre and post testing, warmups and problem solving we have empowered the students not only with the strategies and content they need to answer the questions, but with the confidence, enthusiasm, security and the desire to discover the satisfaction that success in mathematics brings.
MOVING TEACHERS FROM:

TRANSMISSION to
CONNECTIONIST ORIENTATIONS

by developing growth mind set interventions in schools.

(Boaler, 2010)
Barriers to Success

1. Teachers are content driven, and don’t necessarily value the time it takes to address some of the misconceptions in prior knowledge required
   - Addressed through student engagement evidence motivated teachers to value tasks

2. Having teachers and students understand that success in maths is attained by work and effort – Growth Mindset
   - Addressed through student success in open ended tasks and working with teachers through Faculty meetings and moderation of tasks

3. Time – Resource Development, Moderation, Time to familiarise teachers with project
   - Support from Administration Team to allow project time to grow and realise its potential
Attaining outcomes

Our belief – maths is accessible by all, maths doesn’t end in the classroom

Program mantras

- volunteers
- staff own it,
- must build capacity,
- must be sustainable,
- No matter how long it takes – just do it properly because teacher attitude and feeling does make a difference,
- teachers need to have a voice in the actions toward the program – it is their program….
How?

Sales
Access to experts - sold to general staff as “you don’t waste $500 000 when it is offered to you” (4 PEACs at beck and call, 20 days relief for PD, .5 staff member /coach)

Cost
- Minimal to start with – staff didn’t want to lose class time, used spares etc
- Once momentum began, used 20 TRS plus 20 more (6 months)
- Loss of class time for training/developing resources was biggest impact
- 2 HODs key agenda
- Strategic Team – PEAC, Performance HOD, Maths HOD, coach, JS DP’s, myself
- Year level team - volunteer teachers work with Rob and HOD, coach

Future Potential Costs
- 0.5 Numeracy Coach
- Growth coaching for Maths team – ensure substantive conversation
Unintended Initial Outcomes

- Number of volunteers
- Speed of uptake by staff
- Desire to get the activities right using own time
- Energy within the department, rejuvenation of teachers
- SCI Faculty - jumping on board
- After presentation of warm ups to all staff, pockets of staff in other faculties tried them – for their curriculum areas and have embedded them into their class routines