

Have you ever wondered what it would be like to follow a class and witness their learning for a day?

Recently, I followed a Year 7 girls class for the day. This allowed me to see the benefits of Calrossy's distinctive Diamond Model through the superb teaching of single gender classes. The teachers were not given any notice that I would be attending their classes. Earlier this year I did the same for a Year 7 boys class, you can read about the experience [here](#).

I am writing this account so that I can attempt to **highlight the quality of our teachers** at Calrossy. I was indeed privileged to see these lessons first hand and often was asked by the teachers to return later, in subsequent lessons, to see the progress that the girls will have made. Notably evident in the conversations that I had with the teachers, was their passionate planning, as they were able to articulate what the students had achieved due to their thorough planning with this class. All the observed teachers had a strong sense of pride, nominating their instructional practices and choices as yielding pleasing learning outcomes. The other thing that stood out was the high level of subject expertise that the five teachers each had. This served to create keen interest for the girls as they knew at all times they were learning from an expert in their field of study.

Period 1: Visual Arts

'Visual Arts is a forum for embracing failure'

Their teacher has been taking this class through making sculptures. The girls arrived enthusiastically, immaculately dressed. The teacher called the roll interspersed with witty commentary. He swiftly outlined the scope and sequence for the eventual goal of creating a sculpture by Week 4 of Term 4. Their teacher then organised the girls to gather the necessary resources for their project. Previous explicit instruction had been done and the girls were independently working on their sculptures using a material known as aerated concrete which is remarkably malleable to being carved into certain shapes. The girls were carving using saws, chisels and files to make these 3D spatial shapes.

The task demands spatial awareness, acknowledging of form, knowledge of proportional scale as well as planning and research initially from images of animal totems. Then the girls made detailed drawings in a visual diary, known as their visual arts process diaries. Once the carvings were completed the girls then need to answer formal questioning of the process, as well as questioning of the end product on such things designed to evaluate effort, technique, personal understanding of process and usage of materials. The whole aim of these evaluative questions is to have reflective learners from their experience.

Within this lesson the teacher rotated through the class who were able to benefit from his individual feedback, and at times modelling where necessary to the girls so that they would believe they successfully could do the same.

He audibly made a point of stressing the need to embrace error and accept making mistakes, which inevitably will happen. For two reasons: firstly, students learn about the materials and their limitations, and secondly it creates new possibilities, which forces students to problem solve.

Toward the end of the lesson the girls took personal responsibility for the cleaning up of the resources and materials. Brushing down, returning gear, watering and sweeping. Their

teacher then wrapped up and gave directions of where and what the girls needed to do next. Some examples of the carvings appear below.



Period 2: English

‘A masterclass in high impact, inclusive questioning strategies’

The girls stood behind their tables and chairs and said good morning to their teacher, and then sat down.

The girls are exploring and understanding the plot of the short story text, *The Lost Thing* by Australian author Shaun Tan. The medium they looked at was a video animation adaptation of *The Lost Thing*. A boy discovers a bizarre-looking creature while out collecting bottle-tops at a beach. Having guessed that it is lost, he tries to find out who owns it or where it belongs, but the problem is met with indifference by everyone else, who barely notice its presence. Each is unhelpful in their own way; strangers, friends, parents are all unwilling to entertain this uninvited interruption to day-to-day life. In spite of his better judgement, the boy feels sorry for this hapless creature, and attempts to find out where it belongs.

The girls debriefed initially using the Think Pair Share routine to explore what they thought *The Lost Thing* was about? Did you like it? Why/why not?

It was clear in this English class that the teacher had established the expectation that pairs should know they will be cold-called after their discussions – so that everyone knows they could be asked to share their ideas, with no opting out.

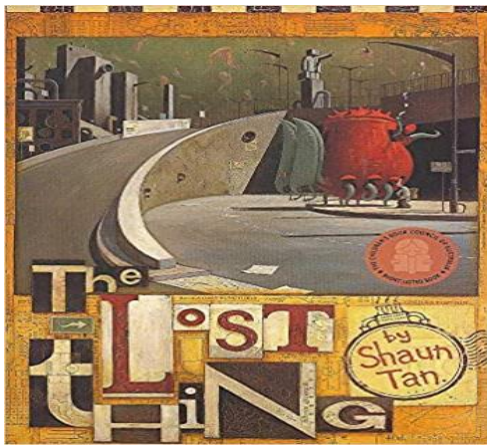
She nominated students to offer their answer, using the technique of [cold calling](#) students. Essentially this means ‘no hands up and no calling out’; the teacher chooses students to respond and establishes the routine that this could be anyone for any question. The teacher asks everyone the question, paused, giving thinking time and then warmly invited someone to give their answer or share their thoughts.

(To the whole class): What did you think the story was about?

Pause

Calling the student's name... what were you thinking?

Then she engaged with the student's response and, after a brief exchange, invited someone else to contribute. This kept everyone involved and thinking. It stops some people dominating and prevents the habit of opting out – that students can develop in a hands-up classroom. In the right spirit, this is a highly inclusive strategy – but it also embeds high expectations about engagement with the material in hand. This was the case as a highly dialogical exchange of ideas and learning resulted.



The teacher, ended the discussion noting the quality of the discussion as being “good” and then said however, “you will not remember it, so we need to write down some reflections from 5 questions written up on the board into your exercise books.” Some of the questions were closed ended comprehension based while others were more open-ended inviting student perspectives and opinions to emerge.

Then she wrapped up the lesson, concluding by checking for understanding. In this class everyone was thinking. Everyone was exploring their own schema (emerging understanding) looking for gaps, making links. Everyone was thinking. And she was getting a rich wash-back of feedback from the class: levels of fluency, knowledge gaps, insights into students' thought processes. It was dynamic, responsive, inclusive. As the bell went girls stayed back to carry on the conversation about what the class had discussed with their teacher. This was and is great teaching.

Period 3: PDHPE

'An exemplar lesson in supporting students to succeed'

The teacher began the PDHPE class by reviewing how to record a bibliography for the present assessment task on Challenges That Need Support, whereby girls research and write about lifestyle diseases such as Type 2 diabetes, cardiovascular disease and skin cancers. The teacher asked the girls to shut their laptops so that they did not have to compete with the distraction of their laptops and would be able to attend to her verbal instructions. She utilised a projected worked example up on the board of a bibliography and used closed ended questions to the class to help check for understanding, and to emphasise correct procedures for bibliographic referencing. This teacher had very high expectations for girls being able to concentrate and actively listen. This transferred then into a demonstrable ability to be personally responsible for attending to her instructions. Her instructions were clearly audible and there was no speaking or interrupting as she spoke to the class.

A feature of this teacher's chosen instructional strategies is the high level of support offered by modelled, scaffolded worked examples so that the girls knew what success looks like.

Mention there are risk factors you can and cannot control

Scaffold of how to answer the question	
General Statement: - Describe the lifestyle disease, introduce the main risk factors that will be explained.	- Describe the lifestyle disease - Link the risk factors for the lifestyle disease - Mention any statistics - Must be from Australia - Link → how is the disease a lifestyle disease
Risk Factors 1 Write a topic sentence to preview your main ideas. Use words/phrases to help you show CAUSE, because, due to, for this reason, since language. Use words/phrases to help you show EFFECT; thus, therefore, so as a result of, as a consequence.	P - Risk factor 1 you can control E - Explain the risk factor E - Examples L - Link the risk factor to the lifestyle disease
Risk Factors 2 Write a topic sentence to preview the main ideas. Use cause and effect language again.	P - Risk fact 2 you can control E - Explain the risk factor E - Examples L - Link the risk factor to the lifestyle disease
Describe Who/what can influence a person's lifestyle behaviour	- Who can influence a person to make negative and/or positive choices - Give examples of negative/positive (bad/good) choices
Reducing risk factors Suggest strategies a young person can do to reduce the risk of developing the lifestyle disease	- What strategies a young person (12-25 yrs) can do to reduce the risk of developing the lifestyle disease. - Give examples how to reduce the risk
Conclusion Overall statement linking all important points. The benefits of good health choices and lifestyle decisions relative to individuals situations.	- Reread the task again. - Statement linking important points in the above paragraphs. - Benefits of healthy choices and how it is related to a healthy decision/behaviour

This occurred in three forms. The first was the explicit instruction from the front of the room, the second was the individual instruction given during the class to individual students as they required, and the third was the highly supportive and scaffolded class page on the learning management system, The Hub. Some features of the scaffolding on The Hub included a scaffold featured below of how to answer the assessed question.

Additionally, their teacher had included a highly organised section on The Hub, titled Previous Work – archived Classwork. This provision from her allows the girls to revisit the classwork independently when they are at home.

Term 3 - Previous Work - Archived Classwork

Week 7

Learning Intention - Explore the concept of harm minimisation and its importance for reducing the risk of a potential lifestyle disease through the lifestyle behavior you may adopt.

1) Complete the following handout. First look at the type 2 diabetes worksheet from last week because the handouts this week are similar and might help you.

Handout - [CLICK HERE](#)

2) To check your answers from the handout click below

[CLICK HERE](#)

3) Textbook Read - p206-208 go to the pages or [Click Here](#)

Extension

4) After reading the textbook p206-208 complete the handout. The answers are in the reading from the textbook - [CLICK HERE FOR HANDOUT](#)

As the girls worked independently on their laptops, the teacher positioned herself at the back of the classroom to enable her to have a full view of the screens that the girls were using on their respective laptops. This served two purposes, firstly to see where they were up to with regards to completing the task and secondly to be able to guard against any off task viewing of material on their screens. Additionally, the teacher had separated students by having dispersed desks to minimise off task talk.

An enduring feature of this class was the reverence of high regard and respect that they had for their teacher. It was an industrious class typified by kindly working quietly and working hard to complete the learning task at hand. There were periods during this class where the girls were clearly in full flow and the atmosphere was typified by not just 'quiet': but learning in absolute, total, complete, you-could-hear-a-pin-drop [silence](#).

Period 4: History

'An exercise in empathy.'

The girls have been learning about warfare and trade in Ancient Egypt and pharaohs. Therefore, this lesson came off the back of a unit on Ancient Egypt. It was a fun lesson where the girls were able to get into dress theme. The lesson involved constructing and getting to wear a Pharaoh Headdress. The girls today were able to create and make an Egyptian Pharaoh crown from pencils, paper, scissors and glue. The teacher used this an empathy exercise so that the girls would be able to relate to the dress of the time. Once the girls had drawn on the blackline master, they then had it modelled by their teacher on how to make the separate components into a final product. The Historical context might help: There were many different types of headdresses in ancient Egyptian culture. Some were specific to the various gods in ancient Egyptian culture, and some were specific to the different pharaohs, or kings, of ancient Egypt. But there were also headdresses that were specific to different regions of ancient Egypt, or different occupations.

Year 7 girls had recently completed an assignment on creating a museum display which consisted of dioramas, websites, PowerPoint presentations, artefacts, accompanying brochures, or a combination of these. The girls explored some of the virtual museums online for ideas. Their museum display included:

- the background of the significant individual (family background, early influences)
- the career of the significant individual (key events in their lives, methods used to achieve aims, relationships with other individuals and groups)
- challenges to the individual presented by others
- the manner and impact of their death
- the legacy of the significant individual (assessment of their life and career, ways they shaped or changed their society, their long-term impact and legacy).

Here is an example of a completed project. Presented initially in a box that then folds out as seen below.



Period 5: Mathematics

'Instructing vocabulary from the start sets up novice students to succeed.'

The teacher began this lesson by asking for quiet and the girls responded instantly without any further talk, and he began to deliver his instructions outlining the lesson's intentions. The lesson was about introducing the new topic, statistics and the summary of data.

The teacher has extensive Mathematics subject expertise and an innate ability to explain things by drawing upon his vast knowledge base. This meant that for the range of questions the girls asked, that they were securely guided in the right direction by their teacher. He introduced the required vocabulary from the start of the lesson, interspersing this instruction with closed ended questioning to check for students' understanding.

Furthermore, he was then able to relate the vocabulary to real life examples in a purposeful way. The class was required to take down notes on the new topic, so that they could later draw from this vocabulary to access the future learning that they would be attending to. Vocabulary matters – ensuring that students are equipped to comprehend the task/questions asked of them and effectively respond to these is vital for student success, and is strongly founded on students' own vocabulary bank. It is a simple concept on the face of it – students with stronger vocabulary knowledge should perform better, while those with "stunted" vocabularies are likely to be held back academically and socially. The teacher's approach exemplified this informed evidential approach to setting the girls up to succeed.

This lesson also put paid to the myth that Mathematics does not involve writing, reading or literacy. In sum, robust vocabulary instruction is a crucial driver of knowledge-building.

After introducing the terminology, he then introduced the application of statistics as applied

Suggest whether the following are examples of a census or sample. Explain why.

- The School Representative members survey every year 7 student about the school uniform policy. *sample because there only asking yr 7*
- Students arriving on Bus 3 are surveyed for their opinion on school bus services.
- All ticket buyers to a "Budget Tuesday" movie screening are surveyed about ticket prices. *census because they surveyed all of them*
- All school staff, students and parents are asked about the content of a new canteen menu. *sample because they surveyed everyone*

Example
Open-ended Question: What do you think of your school?
Alternatives: Do you like school?
Would you make changes to your school?
Do you prefer another school?

- What is your opinion of fast food?
is fast food better than homecooked
is fast food cheaper than homecooked
- Where did you go on your last holiday?
- How are young driver fatalities best avoided?

50 people are to be interviewed from Year 8 through to Year 11. How many people from each year should be interviewed using a stratified sampling approach?

Year	No. of Students	No. of Students Interviewed
8	108	$\frac{108}{50} = 2.16 \approx 2$
9	125	
10	140	
11	92	

A survey was completed by a radio station. If a 200 song marathon is to be played, suggest the number of songs from each music type to be played, according to the votes received.

Genre	Votes	200 Song Marathon Content
Rock	480	
Metal	238	
Rap	109	
Dance	137	
R & B	86	
Hip Hop	95	
Techno	55	

Sampling must be adequate to reflect the population, if the population is n , then sample size should be \sqrt{n} at the least. Find the minimum sample size for these

- A school of 220 students
- A town of 17 000 residents
- A plane carrying 350 passengers
- A magazine with 55 000 readers

to the census that Australia undertakes. This then culminated in the girls being able to apply this new knowledge to the following worksheet to see if they had understood the new content. This provided opportunities for students to develop and demonstrate their thinking.

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