

all-important, that students needed to accumulate a bundle of knowledge if they were to be successful in life, but it was often a challenge to present that 'knowledge' in an appealing way. During my first few years in PEEL, I thrived on the engagement students had in the classroom through the implementation of PEEL procedures. It took me a long time to realise that it is not content that is important; then I began to understand that engagement was not the answer I was looking for either. It was a long and challenging path that led me to the realisation, and then the understanding, that students need to be metacognitive if they are to be true learners—to reflect on their learning and to understand what makes a good learner. I also came to understand that I could assist students to achieve that through the implementation of PEEL procedures. My teaching journey is taking me on a frustrating yet rewarding quest for encouraging metacognition in the students I teach.

My aim in writing this chapter is to acknowledge that good learning does not come from what traditionally has been seen as 'good teaching', and that engaging students in a classroom activity does not necessarily equate with good learning. It is certainly true that students will learn better if they are engaged in the task, but are teachers always clear on what is important for students to learn? My focus is not just on the student as a learner, but on the teacher as learner, which is made explicit in the effect that my research has had on my approach to teaching.

## THE RESEARCH

The aim of my research was to determine whether what I believed was good teaching equated with good learning. Were students adopting good learning behaviours in the classroom, and if not, how could I assist them to do this?

It seemed to me that the obvious year level for trying to determine the answer to my question was Year 7. These are the students who begin their first year in high school open-minded, eager, friendly, and often with a thirst for learning. My aim, I thought, was simple—to measure the development of good learning behaviours

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# Disasters and metacognition in the SOSE classroom

Lynn Boyle

## INTRODUCTION

I've asked if I can take my Year 7 class through to Year 8 SOSE (Studies of Society and the Environment) next year. Not because they are a fantastic class, but because right now I feel totally frustrated at what I perceive as a lack of 'success' with this group. As is the case with any class, there is a wide range of abilities and, as is common, the weaker boys are dominating and intrusive. It seems to me as though the brightest students seem to be floating along with the current—maybe I'm just being tough on myself.

For a long time, I had not really differentiated between teaching and learning. My early belief was that if students were busy completing the set task and they were enjoying it, then surely they must be learning. For years I got a buzz from the success of student engagement—we were all having fun; the students were not just busy, they were engaged. But I had never really considered that what we teach is totally separate from what students learn. For many years prior to my involvement in PEEL, I was of the belief that content was

over a minimum of one semester. In so doing I thought I would be able to determine the development of my students' metacognition. Along with the students, I also kept an individual journal. We called these journals 'thinking books' (Swan and White, 1994). My reason for using thinking books was that I imagined them being used regularly and that the road to metacognition would be revealed in many of these journals as we progressed throughout the year.

The first two weeks of the year involved settling in and the Year 7 camp. In week 3, our 'real' classes were to begin. Eager to start my research, I set the first task for the first lesson as an activity based on the students' view of learning. The class was introduced to the 'think, pair, share' procedure based on the question 'What is a good learner?' Each student was given their journal in which to write their initial view; they then shared their view with their neighbours and were told that they could add or take away anything they wanted from their list. The class was then asked to divide into groups of four or five and each group was given a body-size piece of butcher's paper. They were asked to find a space on the floor and then choose one person to draw around so that they had a body shape. On the body, using words or diagrams, they were to label all the characteristics of a good learner. At the end of 20 minutes, each group was to explain their 'good learner' to the rest of the class. Groups busied themselves with enthusiasm and brightly coloured textas (felt markers).

It was at this point that I learnt my first lesson. The Year 7s were not particularly interested in doing what I wanted them to—an outline of a body and lots of labels or diagrams to represent a good learner. They obviously had a different purpose for the task. They wanted to create fantastic looking pictures with beautiful blue eyes or trendy looking clothes, flowers in the background or a motorbike for the 'body' to rest on! They were intent on creating pictures to impress, to busy themselves with what they viewed as important—good pictures (see Figure 5.1).

I realized what was happening five minutes into the activity, but no matter how much I insisted that what they said about the learner was important rather than the quality of the picture, they continued to add extra features and colour neatly.

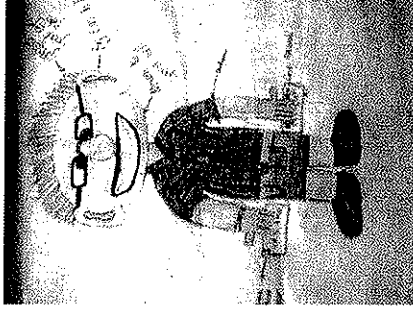


Figure 5.1: Good learner poster at the start of the semester

The discussion that followed was supposed to create clarity for all on the qualities of a good learner. Despite what I initially saw as the first of many minor disasters, the responses were revealing, with the majority of students focusing on behaviours: sits quietly; doesn't speak; a thinker; good hand-eye coordination; listens; gives opinions; cooperates; has ideas; uses manners; understands; is observant; wears [school] uniform.

A rather one-sided discussion followed as I pointed out the good learning behaviours (GLBs—see Baird and Northfield, 1992) that could be valuable from their list of behaviours. However, they were not all that interested in being told!

I persisted. Each lesson students were to record a response to a simple question related to good learning behaviours in their journals—questions such as:

What I did today . . .

What I learnt today . . .

To improve my learning I could . . .

What I found was that the comments students wrote were clearly related to the tasks we completed in class rather than to the thinking and learning which may have occurred:

What I did today was draw a map.

What I learnt today was how to draw a map.

Over the next few weeks, I constantly reinforced any GLBs that were displayed, but this seemed to wash over the class and they could rarely articulate which GLBs they had displayed during a lesson, much less over the week. At the same time, I was being driven crazy by unnecessary questions and requests:

Do I have to do a border?

Do I have to stick this in?

Do I have to have a heading?

So-and-so has my ruler!

I felt as if I was drowning. I was tired of the mindless quibble and decided it was time to give them something to think about—Dirty Tricks (Baird and Northfield, 1992; Mitchell and Mitchell, 1997).

We were studying 'The Earth' and had started the class with a POE (Predict, Observe, Explain) (White and Gunstone, 1992) on a diagram of the Earth's interior. From this we researched and constructed new diagrams. Fantastic pictures! The next lesson we reviewed our research from the previous lesson, then I asked the class to copy notes from the board. I proceeded with:

The earth is like a big ball made up of seven layers. The outside layer is hot and sticky, the next layer is like mud and is hard to walk on. There are a lot of watery oceans inside the earth.

Everyone followed instructions. One student commented about the seven layers but continued to copy. Another asked how it was possible to know that the second layer was hard to walk on! No other comments or questions were made. I asked if anyone had a question.

They didn't! I asked them to take out their diagrams from last lesson and to carefully look at these. Again I asked if there were any questions. Still none. They were not involved in any good learning behaviours—questioning, linking or self-monitoring—in any way at all. They were happy to be given meaningless information and to write it neatly in their books. They believed that they were being good students.

Finally I told them that I had just made it all up and that it was all wrong. Chaos erupted. At last some thinking was happening—they started to question me:

But we trusted you . . .

We have to follow instructions . . .

You told us to copy it . . .

The teacher's always right!

After I had re-established some form of order in the room, we discussed why I decided to do this to them. At last some movement forward:

So we think before we write . . .

We just learnt it so we should have remembered it from yesterday . . .

So we learn to ask good questions . . . so we don't believe everything we read.

This event led to the first entry in their 'thinking books' which actually related to thinking and learning—with over 60 per cent of students responding to 'today I learnt . . .' with comments relating to the fact that they should think before they write. Thirty-nine per cent related to content—learning about the earth—and one student said: 'I learnt my teacher is a liar.'

After that lesson, the students refused to write anything from the board without reading and questioning first.

Despite this small success, I still felt frustrated at the very slow progress I was making on developing metacognitive learners. It was at a PAVOT meeting that I was introduced to a process that temporarily helped lift the rate at which I could introduce GLBs in a consistent and ongoing way. A PEEL colleague, Gill Pinnis, introduced a small booklet she had titled *The L Files* (see Chapter 9). In good PEEL fashion, I adapted the procedure to the following:

- Each student is presented with their own L Files booklet—each page has a different Good Learning Behaviour on it.
- In handing these out, I told the students that I was concerned that we were not really becoming good learners so we negotiated a process of achieving 'P plates' (probationary plates, analogous to those displayed on the cars of drivers who are in their first year of holding a driver's licence).
- When a student displayed ten of the behaviours twice, they would be presented with a P plate.
- The student had to present their L Files to me and have the identified GLB signed.

This created great interest and immediately the class was thrown into a frenzy of practising good learning behaviours. At the end of each lesson, five minutes were set aside for students to come and justify their claims for having pages signed—students were planning prior to starting work, asking good questions, linking to other subjects or their own experience.

The students' journal responses now began to relate more often to good learning behaviours; however, a few students were quick to give up on the L Files as they saw others progressing rapidly and they felt left behind. These students were not interested in identifying GLBs at all—as if the purpose in identifying them was to achieve your P plate and nothing else.

I felt as if I was on a roller coaster, then came a breakthrough. The highlight of the semester was what in fact began as yet another disaster.

The following narrative describes a PEEL procedure known as a continuum: a procedure which aims to encourage attention to the task, reflective thinking, retrieval of prior views, linking and the ability to justify opinions. Each student is given a key word in a multi-stepped process (in this case, a river system). The student must then physically place the word in its appropriate order in the continuum and justify why it should be at this point.

It's last period Thursday. I'm behind in the curriculum with my Year 7 SOSE class. I have to find a way to moderate their need to have so many questions answered, to engage them in more PEEL activities and GET ON WITH THE COURSE! They file in—rowdy after their last class—but I'm not deterred. We have an activity to finish before we get onto the task I WANT to do this lesson.

We've been undertaking a study of 'the earth', but every topic we've discussed has taken twice as long as I anticipate. Their questions, dare I say, are driving me nuts, but I don't admit that to anyone—after all I'm supposed to be a PEEL teacher and questioning is what we want! I put an end to their never-ending questions about rivers by telling them we don't have time for any more questions right now; we have an activity we must complete this lesson.

We've talked about rivers, answered a million questions about rivers and completed the comprehension questions out of their compulsory text purchase. I want to try the river continuum—it's a hands-on activity. I'm tired of all the text-based work. I want the class to have fun with their learning. At last, my classroom will look like a real PEEL classroom—kids buzzing and total engagement. I demand their attention.

'Listen carefully,' I say.

'I'm going to give everyone a card. On the card you will find a word which has something to do with a river system. Then we're all going to stand up and make a circle around the tables I've carefully arranged down the centre of the room. When I say! NOT NOW! When I tell you!'

I look to my folder for my cards—they've disappeared. I search frantically—more time wasted.

They're nowhere to be found. I throw a sheet of blank paper at each student as I rush around the room.

'I'm going to tell you what word to write as I come around, so listen carefully!' I splutter.

I hear from the far corner—the questions starting again:

'How do you spell DELTA?'

'I've got that word—why are you giving it to Simon?'

'How big does the writing have to be?'

'Can I use texta?'

I'm oblivious to all questions—I just want to complete this wonderfully PEELish activity. At last we have some sort of order and everyone has a card with a word related to rivers written on it . . . I hope that everyone can understand what the cards say—the spelling is atrocious.

Several hours later, or so it seems, the students are lined up around the table.

I start speaking. 'OK—this is how it works. We're going to start with Andrea. She's going to place her card on the table where she thinks it should go in a real river system; at the start, the end, or somewhere in the middle. Joanne will go next. (She's a bright girl so I know she'll do this well, I think to myself.) Joanne is going to place her card next and then we'll follow in order around the room. When Jo puts her card down she has to explain why she's put it there, why her part of the river system should go there. Everyone has to do the same. You can change the order of any card when it comes to your turn but you must justify the move.'

At the end of the tables, a few boys are pushing each other, another boy has sat down and the girls down the back are squirming restlessly. Joanne places her 'meander' card with a brilliant explanation. Mathew's next. He wants to pass. 'NO PASSING!' He places the card on the table with no justification other than 'that's where I want to put it'. This sets the scene for

several others. A few of the students think carefully about where their cards should go and justify their choices admirably, but the majority of students are chatting to one another and moving as far away from the central tables as they can possibly get. We get almost to the last student when the bell rings. I believe I hear a sigh as students rush back to the safety of their own tables and begin to pack up.

What a disaster! I can't wait to get out of the room, out of the school. I don't ever want to see a continuum activity again. I leave the classroom thankful that this disaster is over. The sigh of relief now is my own. Tomorrow we can start something new and I won't ever have to think about this failure again. To add to my pain, I arrive back to my desk to find the brightly coloured, laminated, correctly spelled river systems cards in a neat pile. I talk to no one and get out of my staff room as fast as I can, defeated and deflated.

As I drive home, I start to cool off—it's a long drive. I can't help but reflect on the session and my own questioning process begins. It is a good procedure! Why didn't it work? By dinner I have a list of at least ten possible reasons.

I have the class first period the next morning and I start by telling them that I'd really like to do the continuum activity again. I think I detect groans from the back of the room but I swallow my pride and move on.

I explain why I want to give it another go: 'It's a great way for you to check your own understanding of river systems and especially to learn to justify your opinions.'

A hand shoots up. 'What does justify mean?'

We work out the meaning and I ask for further questions before we start.

'What's a billabong?'

'What's a riffle?'

'I'm not sure when the meander is eroded and when it deposits.'

'What does deposit mean?'

We run through all the terms in the continuum and I jot key words



Has this been a result of remembering GLBs from the L Files books, or actually putting the GLBs into place through such activities as the continuum? Or has it been a mixture of both? Does an explanation of what a good learning behaviour is have to precede the experience of being involved in the GLBs or vice versa? This sounds like a good topic for teacher research.

## REFLECTIONS

As I reflect on my research, I see that I have learnt much more than I ever anticipated. We have not used the L Files in any serious manner this term, yet students are still linking, questioning and self-monitoring.

There are many things that this first attempt at teacher research has taught me:

- I understand now that there are many facets to good teaching and of a PEEL lesson and that you cannot make a lesson successful, in terms of learning, unless you really do share some of the intellectual control with the students. Initially the students had seen no purpose in the continuum task (just as they had initially seen no purpose in the creation of posters showing a good learner). It was only once the students had a need to know that the real learning began. It was when they began questioning before we completed the second continuum that the students understood what the task was and how they were able to be productively involved. It was here that the real learning—the thinking—began.
- I know now that the questioning that I guiltily despised in the students was not the 'good' questioning that PEEL promotes and once again this became clear to me when students actually started asking meaningful questions relating to the second attempt at the continuum.
- I know that students (as I was told during a further discussion with the class on good learning) need to be told *how* to do something, not just *what* to do. I have learnt that there is often a disparity in what I think students understand and what they do understand

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and that we, as teachers, should never make assumptions about student understanding—as I had in the first continuum.

- I've learnt how independent these students can be in their thinking, what good learners each of them can be, and that I should always have high expectations of them. Once again I was reminded of the importance of positive self-esteem in determining self-motivation and a positive attitude to learning—for both students and teachers.
- My expectations were that I would move the class on a steady path forward in their learning, that I would achieve a clear and decisive response to my research question, and that I would be able to clearly say that the students had become metacognitive. Of course I cannot say that I know that now, but I can say that they have certainly moved forward in their metacognitive processes and that metacognition has developed to varying degrees in individual students.
- I accept that I expected too much, too fast. Learning is ongoing—the GLBs need to be reinforced in an ongoing way, not learned by rote! The situation has to be experienced for it to be real and for it to have meaning to students. Just as I was able to learn from my own perceived 'disasters' by taking the risks associated with the procedure and activities I undertook with this class, so too students needed to learn from experience.
- In undertaking research, I have realised that once you begin considering learning along with teaching, it becomes clear that teaching and learning are not synonymous and that teachers, along with students, will always be challenged with, and by, learning. As a teacher, I will forever be challenged to take risks and ride the roller coaster of learning along with my students.

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## **PART 3**

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# **Researching in changes in learning**