



Bek is the cluster facilitator for the North West EHSAS Cluster, Wellington. The cluster aims to improve the critical and creative thinking of all students, with a particular emphasis on student questioning this year. Her passion for thinking skilfully started with her lead teacher role in two ICT Clusters and attending the NAVCON Conference in Bendigo, Australia.

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## BRINGING SKILFUL THINKING INTO WRITING PROGRAMMES

Our Action Research project began out of a casual discussion with some teachers regarding how they are bringing thinking into their programmes. It soon became apparent that bringing thinking into writing was proving very challenging for all and that the benefits to student achievement in doing so, hadn't been explored.

Having recently attended a Dr Robert Swartz and Rebecca Reagan course on skilful thinking, I believed that teachers could make a positive impact on their students' writing by engaging the students in the skilful thinking processes that I had learned on the course, then providing them with support to transfer this to their writing through the use of "writing maps."

As making links between thinking and writing was already new for teachers and I hadn't actually tried this myself, I decided that carrying out some Action Research in this area would be the best way to explore the ideas, upskill the teachers and affect change to their practice. Hence our Action Research was borne.

### Who was involved?

Raroa Normal Intermediate School is a decile 10 school of 540 students in the north west of Wellington. We have 18 full time classroom teachers and 6 technology specialists. Having worked with the staff for a year already, and spurred on by those who I knew were keen to investigate ways of linking thinking and writing, I approached four members of staff. These four very enthusiastic teachers, with experiencing ranging

from 8-25+ years, were predictably excited at the opportunity to build their knowledge and understanding of effective practice in this area and make improvements to their teaching and learning programmes.

### What were the objectives of the Action Research?

What we initially set out to do was to explore ways of bringing thinking into our writing programmes. As mentioned earlier, this wasn't happening much in classes – if at all. At the heart of our Action Research were the following three questions:

1. Where in our writing programmes can we include higher order thinking?
2. How will it impact on our students' achievement in writing?
3. How will the students and teachers feel about it?

These questions became the focus for our Action Research and we moved onto finding out some more about this area.

### Knowledge Building

We decided to build our knowledge in the 3 stages outlined below:

1. What makes a quality writing programme?
2. What is skilful thinking?
3. How can we link the two?

### What makes a quality writing programme?

Having recently completed a Literacy Professional Development programme, we began with looking at what makes a quality writing programme. Although a range of ideas were identified, the key elements were;

- giving students learning intentions and success criteria,
- providing quality models of writing,
- giving specific feedback,
- identifying next steps and teaching to these.
- needs based grouping,
- motivation through interesting content.

The first and last ideas we would address through our Action Research.



# THE SKILFUL THINKER

Teachers of Thinking - Aotearoa Collaborative

## What is skilful thinking?

Next we took a closer look at higher order thinking. The main aim here was for the teachers to explore the difference between ordinary thinking and skilful thinking. Using the skilful thinking processes from “Infusing the Teaching of Critical and Creative Thinking into Content Instruction” by Robert J. Swartz and Sandra Parks, we explored the difference between getting students to carry out different thinking tasks and getting them to do so skilfully. For example, we discussed how we currently get students to compare and contrast and then looked at the skilful compare and contrast process.

Having done this, the group agreed that skilful thinking processes would make considerable difference to the depth of our students’ thinking. The teachers realised that although their students had indeed been engaged in higher order thinking, they had not had their students go to the depths that are involved in skilful thinking. Largely it was determined that students were typically only engaged in the first stage of each thought process and their thinking was left at that.

## How can we link the two?

Finally we looked specifically at skilful thinking and linking it to writing. This was the most difficult part of the knowledge building phase and would require the most exploration and analysis.

We first looked at and discussed the “Keys for Cognitive Composition” by Rebecca Reagan.

Key #1 Deep careful thinking about what you are writing about

Key #2 Developing a plan – a writing map – for organising the writing.

Key #3 Implementing the plan on the writing map utilising knowledge of and experience with thoughtful writing.

In order to grasp how these “keys” played out in practice, I provided the teachers with examples of the skilful thinking graphic organisers and related samples of writing from the course I had attended. This led to a discussion regarding the strengths and weaknesses of these.

1. Blood Brothers – using skilful open comparison and contrast
2. Keeping the Secret – using skilful decision making
3. Bombing of Hiroshima – using skilful decision making
4. Alternative Energy Sources – using skilful decision making

Through these examples, teachers could see how the students had been engaged in deep thinking and how the thinking processes were evident in the students’ writing. The level of thought that had gone into the graphic organisers and the high standard of the writing samples was discussed in depth and caused great excitement. This naturally brought about a willingness to “have

a go” and the final part was to look at some examples of writing maps that are used to assist students with transferring their thinking into their writing.

The writing maps we looked at were:

1. Decision Making Writing: Recommending the Best Option
2. Persuasive Letter (Decision Making)

## Summary of the knowledge building phase

The knowledge gained and examples mentioned above caused much discussion and enthusiasm amongst the teachers. We had total agreement that by engaging the students in deep thinking through the use of skilful thinking processes, we could indeed improve the standard of their writing.

We could also see benefits in using writing maps, but were unclear as to what impact it would have. We had concerns it may result in the students’ writing lacking a personal voice and that high achieving students would find it limiting. However we all agreed it would be worthy of implementation and analysis. We therefore developed a plan to try out some of these ideas for ourselves.

## Implementation Phases

### What was our plan?

Based on the ideas we explored in the knowledge building stage, we decided on a 3 phase model to begin with and then see how it evolved. This model involved providing students with different support for each of the 3 samples we collected so we could see what impact they had.

	Learning Intention	Success Criteria	Graphic Organiser		Writing Map
			Venn Diagram	Skilful Compare & Contrast	
Sample 1	✓	✓	✓		
Sample 2	✓	✓		✓	
Sample 3	✓	✓		✓	✓

The type of thinking we chose to focus on was comparing and contrasting as all teachers had previously had their students carry out some of this analytical thinking. For a context, we chose traditional tales, specifically the tale of Cinderella. We then found 4 versions of Cinderella from different cultures to use. We chose to keep one of the stories the same for all 3 samples and vary the other. I was to prepare the 3 lesson plans for teachers for two main reasons.

1. So that when it came to data analysis we could isolate the variables easier and compare the whole group with greater reliability.

2. So the teachers had a better idea of how to guide students through a skilful thinking process.\*

\* Note: We did not teach a skilful thinking lesson in its entirety. We mainly centred on the “thinking actively” part of an infusion lesson.

- What data would we collect?

### Student and Teacher Surveys

We decided to carry out a survey on students and teachers before the first lesson and after the final lesson. We asked students to rate their own ability relating to comparing and contrasting thinking and writing comparative essays. The teachers were asked to comment on their experience of analytical thinking, skilful thinking and how they had connected the two.

### Writing Samples

We decided to collect samples from students after each of the three different lessons and then analyse each sample in relation to our cluster’s writing criteria and record the results. The three areas we decided to focus our data collection on were content/ ideas, structure and language. We felt these were the main areas that we were targeting for improvement.

### Sample Group

We used the levels students achieved in their first sample to create our sample group. This ensured we had a range of abilities and gender balance represented from each class. Each teacher therefore selected:

- two students who achieved a high level 3 or level 4 on their first sample,
- two students who achieved low to mid level 3,
- and two students who achieved in level 2.

Due to time constraints and student absence, we ended up selecting 20 students – 10 boys and 10 girls whose first samples ranged in level from 1 Advanced to 4 Mid.

### CONCLUSIONS

In summary, we found that:

1. Skilful thinking processes are effective.
2. Engaging students in skilful thinking processes and using these as the basis for writing will improve students’ overall achievement, particularly:

- a. In the content and ideas they use in their writing.
- b. In the fluency of their writing.
- c. For boys more than girls.
- d. For lower ability students.

3. Graphic Organisers that guide students through skilful thinking processes improve the standard of students’ writing more than those standard graphic organisers designed to represent things visually.
4. Writing maps improve overall achievement in writing, especially in the shaping and structure of written work.

### What else have we tried since?

Many other teachers at Raroa Normal Intermediate School became interested in skilful thinking and the use of writing maps. Since the Action Research project’s completion, three syndicates are now undertaking a movies and books comparison and contrast study, utilising the focused compare and contrast graphic organiser and creating a writing map for this.

I have also been working with two teachers (one involved in the action research and one who wasn’t) on building infusion lessons into their classroom programme. Thus far we have looked at using parts-whole thinking to gain a deeper understanding of the digestive system and using causal explanations to explore the reasons why disasters occur. Both of these skilful thinking processes have assisted the students in writing explanations.

### Where to next?

We are now expanding the action research to include teachers and students from our contributing schools. Each teacher who volunteers will undergo a similar process to the teachers from Raroa. This time they will compare results from a standard thinking lesson to an infusion lesson with the support of writing maps. The context and skilful thinking process will be teacher selected and we will cover various levels.

We are also fortunate enough to have Bob Swartz coming down to Wellington to run a two day workshop in March. Following this, there is likely to be even more teachers improving their current teaching by infusing thinking into their content instruction. Coupled with the positive results on student achievement we have had using infusion lessons and writing maps, skilful thinking looks set to be a key feature of quality writing in our cluster.”



# Teachers of Thinking BBQ

As a collaborative member you are invited to attend this event free of charge.

This is a great chance for members of the collaborative to meet and socialise, making those all important contacts with other teachers.

Bob Swartz will open the event with a talk on the 'Habits of Mind' titled, 'Making Habits of Mind Teachable.'

He will talk about developing important habits of mind like learning how to really listen with an open mind to others or learning how to make better decisions, solve problems more carefully, and, especially, determine the reliability of sources of information they come into contact with. He has a straightforward approach that yields the development of important mental habits, and puts these in the right place as enhancers of skilful thinking, and not what is at the core of good thinking: following good thinking procedures. Bob is looking forward to showing the group what this involves, with lots of good down to earth examples.

The BBQ will consist of sausages, salads, a glass of wine, beer or a fruit juice.

You are welcome to invite non-collaborative staff members at a cost of \$30 per person, payable at the venue. We would appreciate a cheque made out to Birkdale Intermediate School.

As catering needs to be organised well in advance only those who RSVP on or before 23 February will be able to enter.

## DATE AND TIME

Saturday 14 March, 11:00 am - 2:00 pm

## VENUE

Carmel College's staffroom  
108 Shakespeare Road  
Milford  
North Shore City

## RSVP ON OR BEFORE THE 23 FEBRUARY

Please phone Virginia at Birkdale Intermediate School's office

Ph 09 483 9168

or email Richard at:

rcoote@bis.school.nz



Saturday  
14 March  
2009



Dr Robert Swartz is returning to New Zealand in March to work with three Auckland Schools then travelling to Wellington to work with Raroa Normal Intermediate School and the Correspondence School.

Bob is Director of the National Centre for the Teaching of Thinking, Boston, and one of the convenors of the International Conferences on Thinking.

He is an author, recently publishing 'Thinking-Based Learning' with Art Costa, Barry Beyer, Rebecca Reagan, Bena Kallick.

Bob advances the concept of "Skilful Thinking" as a combination of thinking skills, habits of mind, and our ability to direct our own thinking.

Dr Swartz has worked closely with teachers in New Zealand, Australia, Saudi Arabia, Singapore, the United Arab Emirates, Cyprus, Spain, and Sweden.

