Home

3Doors®

Readings

Forum

Links

Information Literacy Online

Thinking Literacy in an Age of ICT with David Hyerle

Gwen Gawith

This article was published in Auckland Education, Term 4 1998

ICT and 'Finking' Tools

Twenty years ago when I first found Vygotsky's work and tried to apply the idea of scaffolding with a reluctant teen learner using Buzan's (1974) Use your head techniques, he turned round and said vehemently, "Miss, I HATE this. It makes me fink." Dr David Hyerle has specialised in making teachers and students 'fink?

Hyerle has founded a group called Designs for Thinking. On his most recent visit to NZ he attended the October AP/DP Conference in Auckland. He and the forward-thinking principal of St George's Preparatory School in Wanganui. Alan Cooper, talked about the application of Thinking Maps to student learning and teachers' teaching.

St George's has been applying Hyerle's approaches school-wide for a year and the results have justified Alan's vision in inviting him to NZ. ERO agrees - the school has just had a rave review. He will be returning next year. Included will be a one-day course thr West Auckland Education Centre.

Meeting David Hyerle was a real buzz. The strength of Hyerle's work lies in the exceptionally clear and helpful way he makes links between cognitive purpose and the thinking tools he employs. I like the analogy of Thinking Maps to a language for learning.

Like any language you get fluent by speaking it yourself, not just speaking about it to students. I like the clear context he provides for the learning. The theory is not clipped on: the maps arise from related theory (constructivism, metacogniton, reciprocal learning). Using the maps with understanding of their purpose gives learning and teaching a theoretical and pedagogical coherence and integrity which is often lacking.

What was so exciting about the portfolio examples of the St George's staff and student application of Hyerle's Thinking Maps was this coherence and integrity. Teachers are using the strategies for their own work (planning, evaluation. etc) because they understand the 'why'. Likewise, there is evidence of students' growing confidence as they learn to think with these tools.

The legacy of a decade of grab bag courses on learning, styles, thinking, curriculum statements, technology and problem-solving, whatever, without the opportunity for cognitive and pedagogical synthesis is indigestion. More is nor necessarily better. There are different cognitive tools for different learning purpose, and the point is to understand the purpose in order to understand which tool to apply and how to apply it.

Hyerle's approach is simple - work on a whole-school basis; have teachers spend time learning the 'language', the primitives of brainstorming webs, task-specific organisers and thinking maps. then have teachers apply these maps to their own work. and model and demonstrate their use with students until students are able to select from a range of tool s those most appropriate to achieve a particular cognitive purpose.

If your purpose is to develop information literacy competencies. first you need to know what information literacy is. If your purpose is to develop critical and creative thinking skills, you need to undeistand cognition, and how cognitive processes and strategies overlap with and complement information literacy processes.

In relation to the ICT strategy I think the point that needs to be made is that a trained brain (whether the brain belongs to a teacher or a student), used to applying thinking strategies to a wide range of information and cognitive problemss and challenges is going to find ICT an increasingly useful tool and enhancer.

For both students and teachers it's not enough to know about mindmaps and other graphic organisers, whether they are drawn on paper or on a computer screen using one of several programs available for the purpose. Thinking happens in the head. Knowledge is built in the head, and it's the head that directs what happens on the screen. Students become thinking literate by learning to think.

Students become information literate by learning to use information critically to build knowledge. Cognitive tools help them to understand and deepen their thinking and learning processes.

It was really exciting to discover where David Hyerle's approach and mine coincide. We base our work in common theoretical underpinnings. We both work from the basis that it doesn't work just to say "There are some tools. Use them with your kids." After all. theres nothing new about these tools. David Ausubel talked about graphic organisers in the 6Os: Buzan was mindmapping happily in the 7Os. Most thinking teachers have found Nancy Margolies' 1991 mapping book. If we aren't using these tools alread, why not, and what's different?

It is essential, we both agreed, to use the tools yourself to enhance your own conceptual clarity about the content and the process of learning and teaching and then modelling and guiding until students can choose and apply the maps which will develop their own conceptual clarity about the content and the process.

It's not learning about. It's learning by doing. The more you know about the type of learning in which you are trying to develop student competence, the more deeply you will bt: able to apply the tools and develop students' application. The acid test for whether or not the ICT strategy will 'work' is the extent to which we can demonstrate its influence on the quality of student learning and thinking.

David Hyerle uses Inspiration, Stella and his own Thinking Maps software. but their use is driven by how well teachers and students understand the cognitive processes. David Hyerle's book Visual tools for constructing knowledge, ASCD, 1996 is a must for all thinking principals and teachers.

Check out *David's website*.