

TEACHING THINKING Pocketbook



A pocketful of tools,
techniques and
inspiration for dynamic,
challenging lessons that
nurture better thinking

Anne de A'Echevarria & Ian Patience

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Foreword

We are living in the 'information age'. We are told that the disenfranchised of the 21st century will be those who have no strategies for coping with the ever-increasing bombardment of information that assaults us via our televisions, radios and mobile phones, or the flood of information that we have at our fingertips via the internet.

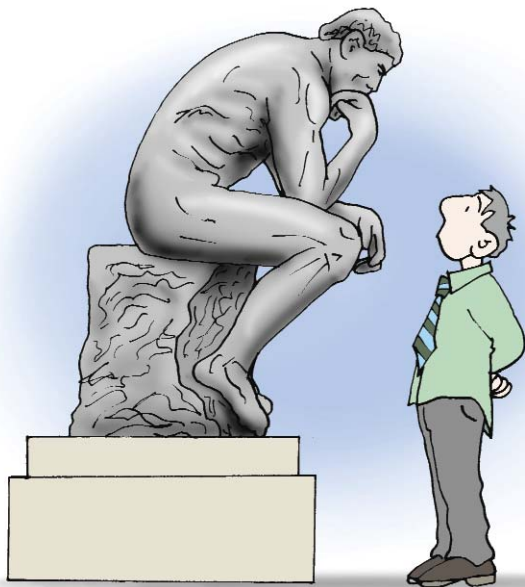
I consider myself ICT literate, but would my students ever use the words 'bombardment', 'assaulted' or 'flood' to describe what is happening? Would you? If it's all you've ever known it probably doesn't occur to you to welcome it or see it as a problem – most students find it exciting. In the time it takes you or me to get up and travel to work, a typical student has sent or received 20 texts, downloaded tunes onto their MP3 player, chatted online to their friends – both real and virtual – and swapped a few movie clips via their mobile phones. But despite their technological fluency – or perhaps because of it, they also struggle.

What strategies are they developing to screen all that incoming information; to discriminate between the valuable, the not so valuable, and the downright harmful? How do they know what, or who, they can trust?

Foreword

Many students have the skills to access information, but beyond lapping up information as entertainment, they do not yet have the skills they need to flourish in the 'information age'. They can communicate online, but not collaborate; they lack a critical approach to information – all is of equal worth; and living life at the pace that they do, being asked to slow down, to move back into first gear in order to think hard about what, how and why they are learning – this is effortful; they do not, in any case, have a language for doing so.

If you recognise any of the above in your students, as we do in ours, then this book is for you. It can help you to develop learners across the age and ability range who value good thinking and want to think well. It can't provide all the answers, but it describes an approach to teaching thinking that has proved successful in helping students overcome some of the problems we've outlined – problems which act as barriers to progress and development, not only across the curriculum, but also in everyday life. In our view, there has never been a more crucial time to infuse the teaching of thinking across the curriculum.





Introduction



Processing
Information



Reasoning



Inquiry



Creative
Thinking



Evaluation



The Thinking
Lesson



I n t r o d u c t i o n

Can thinking be taught?



Thinking, like climbing, can be done well or poorly. There are the experts whose thinking takes them to academic, artistic and technological heights; the proficient, whose thinking helps them negotiate life's ups and downs; and the novices, who are fortunate if they escape injury on the stairs.

Happily, novice thinkers can become more expert because thinking skills, like climbing skills, can be learned, practised and improved.



Who can benefit?



As we develop our ability to think, we improve our capacity to learn. This is one definition of intelligence.

Some students have benefited from the kind of stimulating and supportive environment – particularly important in the early years – that promotes cognitive development. Teaching thinking will accelerate that development still further.

Other students have been less fortunate. For these students 'catching up' requires intervention and this is what 'teaching thinking' aims to do – to actively intervene in students' cognitive development, changing the way they think and learn.

Regardless of our age, perceived ability or background, we can all improve our thinking with encouragement, guidance and practice.

Thinking – one skill ... or many?



Expert thinkers will tell you that their best ideas come in a flash. They don't laboriously assemble their thoughts like pieces of kit and they don't follow set plans to construct their amazing 'mental models'. Thinking at this level is seamless – you can't see the joins.

Novices may say the same, but there will often be a difference in the quality of the outcome. The novice's 'model' may bear only a patchy resemblance to reality, parts may be missing and those present only just hanging together...and the novice may see it as flawless!

To help novice thinkers, we have found it useful to break down the art of thinking into sub-skills that can be worked on and improved over time. We are aware that this may be seen as a simplification of the wonderfully complex thing that thinking is, into a mechanistic means to an end that ignores the mysteries of silent musing, unconscious thought and insight. It is important to keep sight of this criticism and give our students time to experience and reflect on these other dimensions of thinking which are less easily articulated and, therefore, all too often ignored.