



# Learn to be LATERAL

Can innovative thinking be taught? **Geoffrey Maslen** looks at how parents and teachers can provide the spark for the future's leading lights.



CARTOONISTS USED TO SHOW a glowing light bulb inside a balloon to indicate when one of their characters had a bright idea. For too many of our children, the light bulb is never switched on - the flash of inspiration, the unexpected leap to a new conclusion does not get a chance to occur.

Parents and teachers tend to straight-jacket children's minds, rejecting unconventional behaviour and ideas while insisting on conformity to their standards. Take, for example, the ordinary classroom with its 20 to 30 pupils. Sitting in rows, often in uniforms, with limited freedom of movement and expression, the children are subject to didactic lessons that serve to reinforce the convergent responses and provide little scope for original ideas.

"How many uses can you think of for a matchbox?" a teacher once asked his class. The most common, and conventional, answer was "to put matches in"; the least was "as a lunchbox for mice".

Another told her pupils she had gone into the backyard one morning and discovered the lawn was pockmarked with small holes. What could have caused them? The answers varied and the most obvious was that her husband had got up early and had used a pitchfork to aerate the grass.

Others suggested small crabs or beetles or large worms had created the holes while a more lateral-thinking child suggested

it was a ghost on a pogo stick. That is the difference between convention and creation.

Children are capable of these flights of creative imagination all the time. Once when I was settling a year 8 class down before starting a mathematics lesson, a student asked me: "Sir, would you whack someone for something they didn't do?"

"Of course not," I said. "Good," he replied. "Because I haven't done my homework."

The guru of lateral thinking is Edward de Bono. Yet, after reading his books and having listened to his public presentations, I came to the conclusion that de Bono is often facile and superficial. But you have to give it to the man - he has done more than most to highlight the issue of creative thinking.

De Bono says lateral thinking in particular is a thought process that frees people from traditional approaches to every day problems and allows them to come up with often simple, sometimes startling solutions.

He tells a story of grandma who was fast running out of patience as a baby who had just learned to crawl gleefully tangled her ball of knitting wool. The conventional solution would have been to put the child safely in a playpen. De Bono's answer was for grandma to do her knitting inside the pen - either way the baby doesn't get to mix up the wool but with the second method is not denied its freedom.

More than ever, Australia needs innovative thinkers who see things from a different perspective. Increasingly our society relies on such minds to solve problems with less expenditure of time and labour. We export creative genius in the form of our industrial products but the way technology is developing - along with the growing complexity of industry - means demand for creative people can only accelerate.

Of course, all of us are innovative to some extent although we differ considerably in the degree of our creative ability and expression. What is needed is a greater emphasis in schools and at home on developing the creative potential that all children possess. Research shows that this potential will not manifest itself unless it is presented in stimulating environments.

"There is reason to believe that the potentialities of the human mind as genetically determined do not unfold naturally and inevitably but require the active participation of a stimulating environment in order to attain normal development," American psychologist Robert Hess once wrote.

"It is important this stimulation occur as early as possible in the child's experience. The range and variety of early experiences directly affects the possibilities of later learning and sets limits to the flexibility and adeptness of the adult mind."

According to Hess, early deprivation of suitable stimulation probably results in some permanent loss of mental ability. So one of the primary purposes of education is the maximising of children's mental capacities through systematic stimulation and exercise.

To help develop creativity, parents and teachers need to be creative themselves in the methods they devise. They need to encourage children to originate problems themselves that they can solve, to invent new uses for ordinary objects, to try new approaches to old tasks, to produce original art, to communicate in unusual ways and to encourage inquiry, discovery and inventions.

According to psychologists, innovative people vary in their motivational, intellectual and personality traits. But they do tend to have certain characteristics in common, notably that they:

- are full of curiosity about the world
- are resourceful
- have a preference for difficult tasks
- enjoy solving problems
- demonstrate flexibility in their thinking
- have the ability to synthesise and see new implications
- read widely.

Psychologists also say that there is not necessarily a connection between intelligence and creativity, that IQ tests certainly do not reveal creative ability. As one educationist remarked, "If we were to try to select the children as gifted on the basis of intelligence tests, we would eliminate about 70 per cent of the most creative."

So if the intellectual capacities of children are to be fully developed, the abilities involved in creative thinking cannot be ignored. The traditional measures of intelligence assess only a few of a person's intellectual talents.

In one of his articles, de Bono said it had taken years of pioneering efforts (presumably by him) to overcome a series of dangerous myths that had prevented the teaching of thinking in schools. Among them were claims that:

- Intelligent people are automatically good thinkers. De Bono said that, on the contrary, they are often poor thinkers because they get caught in the "intelligence trap" which obliges them to use their thinking to support a particular argument instead of constructively exploring the matter.
- Students develop their thinking as they use it in the various traditional subjects. Not so, de Bono said, not

without the opportunity to express their creativity in a wide range of ways.

- It is not possible to teach "thinking" directly as a subject. Wrong again, said the guru and pointed to Venezuela where, in the 1980s, thousands of teachers were being trained in teaching thinking as a skill and the government had decreed that all school children spend two hours a week on "thinking skills"
- Thinking means "critical thinking" when, in fact, this puts off many people "and has been the bane of Western beliefs about thinking".

De Bono said critical thinking was only a small part of thinking which needed to be "constructive and generative". He defined thinking as "the operating skill in which intelligence acts upon experience".

His "CoRT Thinking Program" is the most widely used method for the teaching of thinking in schools and is in use in many countries around the world.

([www.edwdebono.com/cortl/index.html](http://www.edwdebono.com/cortl/index.html))

But many other institutions also run courses that try to do the same thing. The University of Melbourne's Trinity College is one that offers creative thinking summer schools that are intended to assist highly-able students in years 9 and 10 make the transition to senior secondary education.

Students are introduced to university-style teaching methods in a variety of disciplines, including lectures and small-group tutorials that are designed to be fun as well as challenging. The curriculum offers a set of modules that all students undertake, as well as a variety of elective subjects, emphasising creative pedagogical approaches and innovative teaching methods, as well as hands-on, experiential learning opportunities and the use of technology to assist learning. ★

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## WHY WE SHOULD TEACH CREATIVITY

In promoting its international centre for studies in creativity to prospective students, Buffalo State University in America lists 10 "solid reasons" why they should study creativity:

- Rapid growth of competition in business and industry – In a world of increasing complexity, change and competition, generating new ideas and bringing them to market is now seen as the central task of corporate management. Successful businesses are the ones that instill creativity throughout the organisation.
- Effective use of human resources – Creativity is a human resource which exists in all organisations. To survive in today's economy, it is imperative for an organisation to nurture the creative potential of its human resources.
- Discover new and better ways to solve problems – More and more, the problems you face are complex and open-ended. Knowledge alone isn't enough to reach innovative solutions. Creative thinking skills are required.
- Development of society – Creativity is a central factor in our ability to continue to adapt to the changing environment. If a nation actively seeks to nurture creativity, it will play a part in making history.
- Builds on the nature of knowledge – Creativity skills can assist an individual in enhancing his or her knowledge base. Without creative thinking, an individual is condemned to stay within the knowledge base as it is given.
- Natural human phenomenon – Creativity is very democratic! Everyone has some but to varying levels and degrees. Furthermore, we know this ability can be enhanced.
- Important aspect of mental health – Individuals who are capable of incorporating creativity into their lives can enjoy the experience of discovering, developing, and utilising their many talents. Skills relevant to creativity are also useful in coping with life's challenges. There is no doubt, creative thinking is a critical life skill.
- Growing body of interest – There is a growing body of literature that represents impressive progress in understanding the nature of creativity. Moreover, there have been a large number of national and international conferences on creativity for over 50 years.
- Builds on all disciplines – Creativity is in all fields, from chemistry to engineering, education to computer science, sociology to business.
- Contributes to effective leadership – It is the application of creativity skills that distinguishes a manager who maintains the status quo from a leader who supplies a new direction or vision.