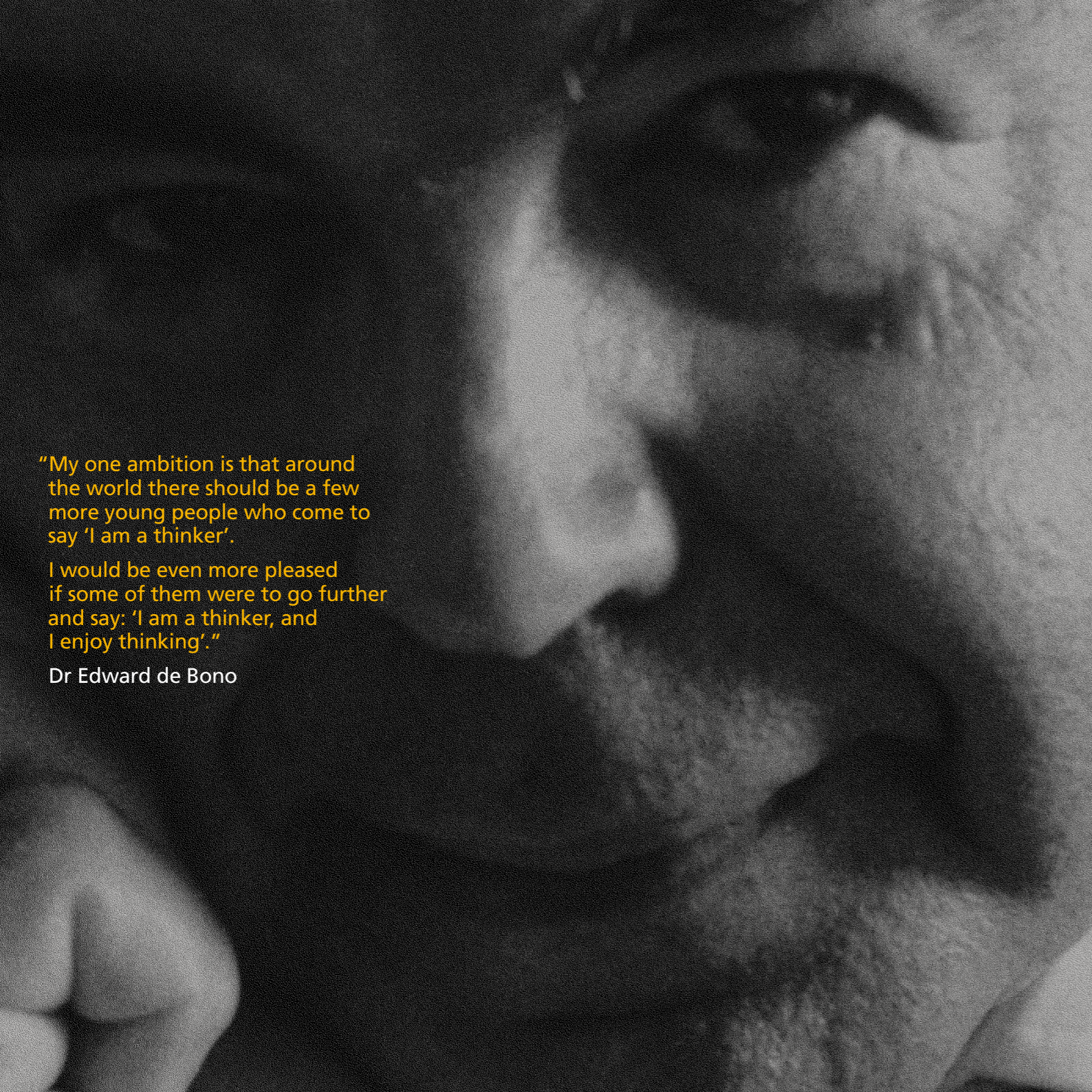


# ThinkPlus

dbi  
de bono institute

*where young people create*





"My one ambition is that around the world there should be a few more young people who come to say 'I am a thinker'.

I would be even more pleased if some of them were to go further and say: 'I am a thinker, and I enjoy thinking'."

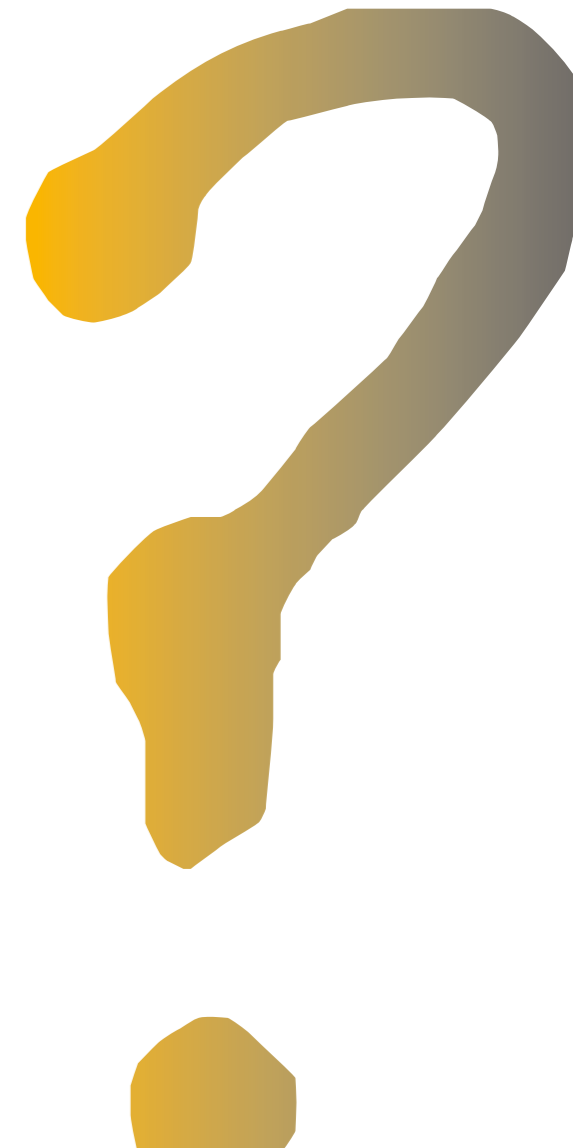
Dr Edward de Bono

## What future are we building?

**Question:** It's often said today's children are tomorrow's future. But what do young people actually *need* in order to thrive in the rest of the 21st Century? For centuries, teaching has been about passing on information. In a world where unprecedented amounts of information will be freely served up to them on a platter every day, what do we actually need to *teach* them?

**Answer:** We need to teach them to *think*. We have to bridge the gap between the seemingly endless flows of pure information that are available at the click of a remote control or a mouse, and their own understanding and critical analysis.

We need to build their capacity for using all that information to solve complex problems, make informed decisions, and in doing so, generate *new* knowledge which functions richly in their lives and helps them deal with the world.





## The problem with how we do it now!

In the 21st Century, it's no longer enough to make basic literacy and numeracy our goal, although these are, of course, and will remain, the bedrock for everything else.

Indeed, the potential danger of Australia's much-touted new national curriculum is that it may, in some cases, actually create deficient educational outcomes. We may fail to instill the ability to be creative. We may fail to equip young people to make best use of the unceasing flow of information around them. We may fail to ready them for the needs of a 21st century career.

For example, whilst acknowledging that with the best teachers the curriculum may not result in any diminution of creativity, noted NSW curriculum expert Jenny Allum nevertheless said:

*"I think ... it could well result in a stifling of creativity and deep thought in the various ways it is implemented by teachers of different abilities ... the curriculum should not be about [the] regurgitation of facts."*

Her point of view was echoed by Brian Croke, a member of the Board of the Australian Curriculum, Assessment and Reporting Authority, who has warned:

*"It would be an irony, and a pity, if creativity turned out to be a casualty of [the] national curriculum and assessment. Australia needs to ensure that its teachers, especially its newest ones, are equipped for the challenge of teaching creativity ... if we are going to be serious about creativity we need to do a lot more work."*

He also went on to say; *"Teaching students team work and thinking skills are the responsibility of every teacher."*

### **Why is this so important?**

Well, it's already a cliché to tell people that today's school leaver may hold up to forty jobs before they retire. But do we stop and consider that in broad brushstroke terms, the structure of that child's school career is the same, in all its major elements, as was taught to their parents and grand-parents, who might work in just a handful of jobs over forty years?

Another current cliché is to remind people that many of the forty jobs those kids will do are yet to be invented. Social, technological and demographic changes mean that today's young people will be living in a very different world. The hard fact is that because that world is going to change faster than we can currently envision it, we are actually *unable*, today, to give them all the knowledge they are going to need to survive and prosper.

Clichés these points may be, but they are nevertheless, true. And central to why ThinkPlus must succeed.

More than ever before, the future needs people who are innovative, flexible, and creative, with high levels of emotional and social intelligence, so they can retain, understand, share and actively *use* knowledge. Otherwise they simply won't cope with the future. And if they don't cope, well, there *is* no future, in reality, is there?

*"...Teaching students team work and thinking skills are the responsibility of every teacher."*



## LIQ: Learnable intelligence

We are all born with what is called *neural intelligence*, or IQ. This is our raw ability to compute; how much 'grunt' there is in our brain, how big our 'engine capacity' is, if you like.

We gain *experiential intelligence* through our activities in a specific area, such as learning to play the piano.

We gain *reflective intelligence* by being aware of our thinking patterns, and the way we can change these patterns if we wish to.

*Learnable intelligence* – which is what ThinkPlus is all about – is a deliberate, structured combination of experiential and reflective intelligence.

As Professor David Perkins, Senior Research Associate at Harvard University explains; "People can *learn* to think and act much more intelligently". It is reflective intelligence that provides us the opportunity to increase our use of different thinking strategies. When we tap into our reflective intelligence, we are able to increase our capacity for solving complex problems, making informed decisions and generating new knowledge about the complicated world in which we live.

Developing a carefully planned and thoughtful *metacurriculum* that allows these skills and abilities to develop, is required. Learnable intelligence doesn't just happen by accident. We need to teach people how to access it.

And remember: it's what our young people need to be equipped with.

Ask any employer. Yes, they want people who are literate and numerate and have information technology skills. They also need people who can build and maintain relationships, work productively in teams, and communicate effectively. They look for problem-solvers, people who are resilient, take responsibility for decisions, and are enquiring, flexible, intuitive, adaptable and willing to learn new skills when the job demands it. Accordingly, *thinking for understanding and doing* needs to be our education focus, rather than simply acquiring a body of knowledge.

It's this simple. Our capacity for amassing information has grown exponentially. But if schools and colleges continue to see their role as simply installing that knowledge – hard-wiring it in a traditional way into student's brains – then we will fail them. Because increasingly, our world is going to be about not what you know, but what you know about how to do something useful with what you know.

# LIQ!

# "ThinkPlus ... digitally aware"



*"Learning in the 21st century will demand new ways of thinking ... radical re-imagining, for new ways and places to learn ... new ways to see learning as it takes place, and, most important, a focus on fostering passion, thinking, creativity, innovation, and the skills that are needed to compete and thrive in a global, connected world."*

John D. and Catherine T. MacArthur Foundation

## Where everything (and everyone) clicks

ThinkPlus is an innovation project developing the protocols, processes, programmes and products for developing learnable intelligence and good thinking practices.

Critically, it will also actively utilise new technologies, because these are the technologies that matter for our future community. This means much more than 'giving children laptop computers'. We need to think more fundamentally about the tools and processes with which they will be innately comfortable with and how we can use them to best effect.

It may shake the foundations of some ivy-clad walls, but in the digital age the fundamental operating and delivery systems are networks, and not institutions as such, which are becoming just one node on a young person's interlocking spider's web of learning opportunities.

ThinkPlus' digital awareness is not about technology for technology's sake, turning our backs on teaching, or throwing out traditional literacy and numeracy skills.

Nothing can replace the central role of teacher as guide, filter, mentor and provoker. And no amount of smart thinking can accomplish anything without the thinker being literate and numerate. So part of the process of designing a digital media and learning strategy for ThinkPlus will be about aligning the programme with what people do with digital media in today's world – where they click, why, for how long, and in what way – and especially the potential for peer-based learning.

*"The 21st Century is well and truly upon us. Children today are different from previous generations, and experience the world in a vastly different way from them – technology has ensured that this is the case. This suggests that as long as the reality and rhetoric do not match, the more likely it is that our children will not get the best education possible and may be ill-equipped to deal with a vastly changing world. When it comes to education for today's students, the word 'revolution' is appropriate, but in essence it means 'a sudden, complete or marked change in something'. We would therefore do well to ask how much longer we can continue to educate 21st Century students with 20th Century methods."*

Dr Michael Nagel (Head of Education Programs in the School of Science and Education at the University of the Sunshine Coast) in *Teaching for the 21st Century*.



## So let's put our flag in the ground

ThinkPlus is about current and emerging brain sciences, thinking and intelligence research, insight, knowledge, and transforming current practices and pedagogy into a metacurriculum for young people in the 21st Century.

ThinkPlus is

- a set of key realms which consist of thinking dispositions, mental management, thinking and creativity tools, and teaching for transfer, which – taken together – forms a new metacurriculum for young people to learn thinking and develop learnable intelligence,
- a programme which young people contribute to and shape themselves,
- a practical, flexible and systematic approach,
- accessible to all schools and their teachers and students in various ways,
- also accessible to parents and the community to ensure all children have the opportunity to create, and
- based on current, on-going world's best research and practice.

ThinkPlus is not

- a project that can be delayed until children become adults,
- something that 'replaces' other curriculum items,
- a 'banking' view of teaching in which thinking tools are deposited into young people's minds and then left there to flower or rot by chance, or
- high-minded intellectual waffle.

### Metacurriculum

The regular curriculum consists of subject matters of mathematics, science, languages, history and so on, that each child navigates according to ability and interest.

The metacurriculum proposes quite another kind of content. It is good to have a clear picture of what we want youngsters to learn. This is what a curriculum is for.

A metacurriculum is about youngsters learning their way around good thinking. It is made up of key terms and concepts about thinking, beliefs about and attitudes towards thinking and good thinking practices.

Dr David Perkins, Senior Research Associate, Harvard Graduate School of Education

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ThinkPlus is new. Really new. We all need to take time to get our head around the opportunity.

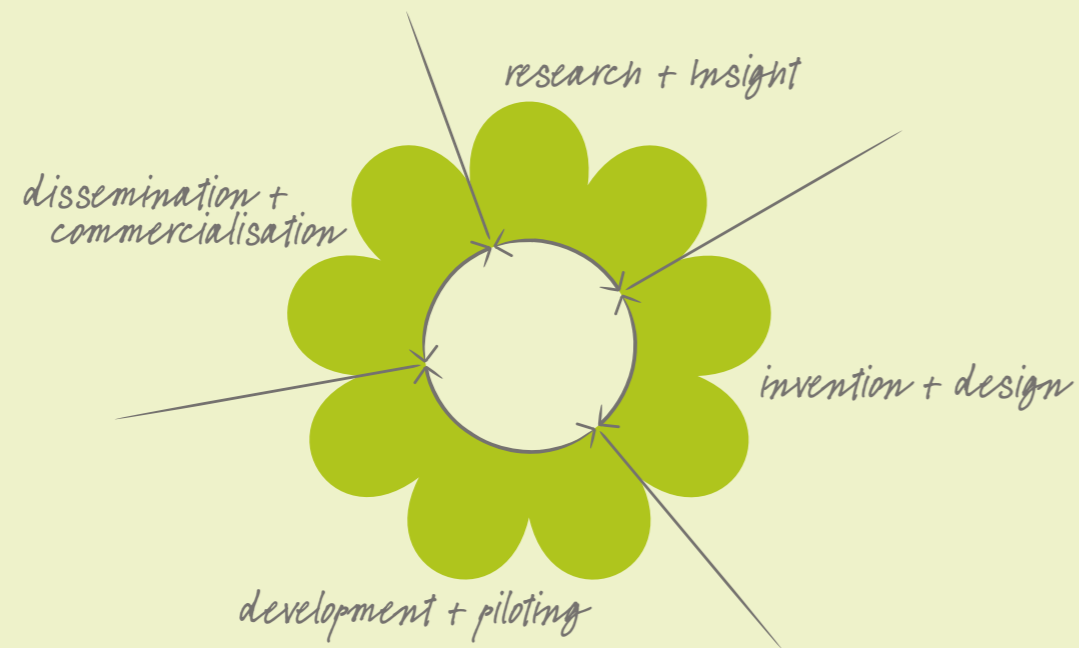
The seed of ThinkPlus wasn't even planted until the de Bono Institute had engaged in ten years of practical research, and many years of 'real world' practice and insight gained in education, industry and public affairs.

Already the repository of some of the most exciting knowledge in the world about how human beings think more effectively, the de Bono Institute has consciously set out to design and develop a new metacurriculum for young people to develop the necessary talents at an earlier age, so that individuals are equipped with the right skills for life from the word 'Go'.

ThinkPlus challenges our assumptions about what happens from the age of about six to about when young people leave further education. Its goal is, quite simply, to teach young people to think *better*. It is about the 'how to' of thinking, not just the 'what should we think about?'.

The 'how to'

of thinking



## How the ThinkPlus project is structured

ThinkPlus is designed in a number of iterative stages as it moves through the innovation cycle. The stages are Research + Insight, Invention + Design, Development + Piloting and Dissemination + Commercialisation. They will be worked through first with schools and educators, and then with children, parents and the wider community.

### Research + Insight

At the research and insight stage of ThinkPlus, we gather knowledge and understanding of the current landscape and think about how we can develop learnable intelligence and good thinking practice through a metacurriculum.

Mistakes and mis-steps are part of the process – only to be expected in any such radical project, and therefore to be welcomed. As new research comes to light we can always return to this stage to re-examine the information and our previous assumptions, or when a challenge presents itself we can return just as we would come back to the pantry during the preparation of a fine meal if we decided the meal needed more or different ingredients.

### Invention + Design

From our research and insight stage, we move into invention mode: challenging existing logic and practices with deliberately new ideas, bringing in diverse expertise and knowledge to help us design ThinkPlus as a metacurriculum, based around an accessible set of protocols, programmes and products.

By prototyping and visioning with a number of leading educators, schools and students, the ThinkPlus metacurriculum is now on the verge of entering the development and piloting phase, during which we will ensure it is broad, durable, flexible and meaningful.

The ThinkPlus metacurriculum is structured as follows:

**Discovery | Capability | Expertise | Extension**

#### Discovery

At the very beginning, the school leadership explores and designs the specific approaches and strategic plan to implement a metacurriculum and infuse a culture of good thinking practice across the school over an agreed time period.

Teachers and educators take the first steps towards understanding a metacurriculum: it's goals, benefits, how it works and what is needed to make it a success.

They start the journey by reflecting on their own thinking dispositions. What are their default patterns of thinking, beliefs, values and feelings? Do they understand their own mental habits, and, indeed, how the brain works? How should they ready themselves – both in their own learning and with their students – to develop learnable intelligence with young people?

### Dispositions

**A thinking disposition is a tendency, habit, or commitment to thinking in a certain way. For instance, the disposition to be open-minded, the disposition to think in an imaginative, adventurous way, or the disposition to seek out evidence.**

**When cultivating reflective intelligence it certainly involves developing learners' thinking skills, however dispositions need attention too. People can become reasonably skilled at an activity like swimming or thinking, without being especially disposed to engage in it. Someone may be an able swimmer but a reluctant one or an able thinker but a lazy one. Teaching intelligence means not just building skills but fostering the thinking dispositions that muster people's energies towards good thinking.**

Dr David Perkins, Senior Research Associate, Harvard Graduate School of Education





## How the ThinkPlus project is structured

### Continued

#### Capability

Teachers and their students learn the language of thinking and tools to improve thinking effectiveness and creativity. They will develop new and different thought patterns and thinking language to shift, broaden and deepen individual and group perceptions.

The result? By building capability, teachers and young people will be better able to: work in teams, think creatively, problem solve, make decisions, explore and research effectively.

(And yes, as a spin-off, learning environments will become calmer, more co-operative, more interesting, and more conducive to beneficial results. In many schools, ThinkPlus would be worth pursuing for this goal alone, but it is merely a happy side-effect of the programme.)

#### Expertise

This is where we develop the transfer of what was learned in capability, by making an explicit connection between today and tomorrow in the learning. Links are created between the subject of thinking itself, and all the other subjects in the school.

Students learn to integrate and apply their new learnable intelligence across their educational landscape, as well as their social settings and life in general. It is also expected that they will become enthusiastic ambassadors for the programme, making it increasingly accepted in academia and society generally. A thinking culture, no less, will be created.

#### Extension

Extension is the culmination of discover, capability and expertise.

The school leadership team, teachers and students observe and review the programme in action, and assess research results to understand its impact. Flowing from this, they create refinements and extend the learning across the school and into other schools. The programme spreads both deliberately and organically as its worth becomes clear.

To engender support and to recognise achievement, during this stage there are also school awards, medals for young people's contributions, and schools are able to apply and be approved as a de Bono Accredited School.

But does it work? Well, we're about to find out. That's why the ThinkPlus metacurriculum is heading into development and piloting stage, so it can be tested – thoroughly – in the real world.

#### Development + Piloting

The development and piloting stage is the design of the protocols, programmes, and products to pilot and test ThinkPlus with a number of schools across a diverse cross-section of Australian society.

We are establishing advisory panels, importantly including a panel of young people, to ensure that ThinkPlus is collaborative, reviewed and refined with all stakeholders taken into account, as well as being culturally sensitive and attractive to its core targets.

This development and piloting stage will be the start of the next phase of a longitudinal study to review and reflect upon the practices and progress. It will commence in the next few months.

Only then do we reach the final stage:

#### Dissemination + Commercialisation

Once ThinkPlus has been piloted, tried and tested, we will move into the commercialisation stage, whereby ThinkPlus will be formalised, distributed and ready for dissemination. ThinkPlus will be launched by forming formal partnerships with schools across Australia.

Importantly, effective social networks will be established to continue to foster the innovation embedded within ThinkPlus. New ideas and opportunities will be recognised as more and more schools take up the metacurriculum for the 21st Century, and the very process of implementing ThinkPlus will inevitably begin the next innovation cycle, in part utilising a digital strategy and online materials.

#### Transfer

**Transfer is the ability to apply what one learns in one setting to other settings.**

**Broadly speaking, there are two types of transfer: near and far.**

**Near transfer means applying the same skill in a very similar circumstance. For example: you learn some strategic reading skills in the English class (that's the first context). Then, later, you use the same skills in social studies (the second context).**

**Whereas far transfer refers to contexts that are very different. For example: you learn problem solving in mathematics (first context). This is then applied when shopping in a supermarket, or in an English class or in the Physics class (second context).**

Dr. Katherine H. Greenberg,  
University of Tennessee

#### Thinking Culture

**The notion of culture refers to the integrated patterns of thought and behaviour and binds together members of a group. To talk about a classroom culture of thinking is to refer to a classroom environment in which several forces – language, values, expectations and habits – work together to express and reinforce the enterprise of good thinking.**

Shari Tishman, Director, Project Zero,  
Harvard Graduate School of Education

## A message from Dr Edward de Bono

When I started talking about thinking nearly a lifetime ago, many people frankly thought the idea was rather peculiar. Thinking wasn't a learned or a deliberate skill. It was just ... thinking.

Fifty years later, policy-makers, scientists and educators the world over recognise that thinking is not something that just 'happens'. We have to work at it. Thinking can be good, or bad. And we choose which we do. As individuals, and as societies. We think badly, or we think well. And everything else flows from that.

ThinkPlus is a dramatic step forward. Yes, it is still in development. Yes, there will still be hiccups along the way. It is a conscious and bold attempt to elevate the quality of thinking in Australian schools, and by extension, in society itself.

Despite its small population, Australia is a leader on the world stage, and already one of the most wonderful countries to live in, and this project is a determined move to make it even more so. More than ever before, our world needs more and better thinking, especially from countries like Australia. Accordingly, I warmly commend everyone involved, and wish the project well in the future.



## A message from Susan Mackie, Chief Executive, de Bono Institute

Australia has a vibrant heritage of creativity, of responding to new challenges and maximising our opportunities. We have a world reputation for developing innovations.

And yet our current education system has simply not had the chance to keep pace with changes that have rapidly taken place and the challenges we face – climate change, population growth, resource depletion, globalisation, economic crises, new technology and more.

It is time to re-think how we educate young people for the future. To re-inspire kids: inspire them to think and to be creative. To meet the demands of a changing world, beset by economic, social, moral and political pressures, our children need to be more flexible, adaptable and multi-skilled than ever before.

de Bono Institute believes that they way forward lies in equipping young people with an essential, fundamental skill – the learned ability to think effectively and be truly creative. The de Bono Institute has worked in partnership with educators, school children and academia to develop ThinkPlus so that young people can reach their full potential.

ThinkPlus is based on our understanding of how thinking and learning actually happen, and how it is changing based on new developments in cognitive science and educational psychology. This project isn't about the results of thinking – for they are as yet undiscovered – instead, it recognises the primary importance of thinking as a skill in its own right.

So I challenge you: Isn't this what we've all been waiting for?

## About de Bono Institute

de Bono Institute is passionate about thinking, creativity, design and learnable intelligence. At the heart of all that we do are the thinking and creativity tools of world-renowned Dr Edward de Bono.

Dr de Bono was once asked to describe his 'ideal country'. He replied: "It would have a population of under 25 million; it would be somewhere in the Pacific Basin; it would have to have the English language. It would have reasonably articulate, literate and clever people. With that going for it, we could create the most astonishing country. But actually it already exists – it's called Australia."

Dr de Bono, with the help of the Andrews Foundation in Melbourne, then set about to turn his 'most astonishing country' into an even more concrete reality. The Andrews Foundation saw an opportunity to invest in Australia's future by supporting the creation of the de Bono Institute, a not-for-profit organisation dedicated to helping young Australians equip themselves to face the challenges of the 21st century.

From today, and by collaborating with enterprising and imaginative thinkers, educators, industry and government at all levels, we will do this through ThinkPlus.



thinkplus  
young people create

### Acknowledgements:

Ideas emerge from the interaction among people. We would like to thank the following people who have contributed in various ways:

Dr Edward de Bono.

The Board of de Bono Institute: Noel Martin, Robert Pomeroy, Mr Dipen Mitra.

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And all the schools, educators, and students we have worked with over the years.

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## Just think: be part of the ThinkPlus revolution

Our project is now moving towards the Development and Piloting stage. What you do next *matters*.

We now need to pilot and test ThinkPlus with a number of schools across a diverse cross-section of Australian society before moving to the Dissemination and Commercialisation stage.

We hope that this ThinkPlus project overview will encourage you to join us in the development, trialing and sharing of this exciting new approach to educating our young people. We would be very happy to discuss the detail of ThinkPlus further, and hope to work closely with a number of schools to extend the project. Please ask yourself: Should your school be involved?

We also hope that this document inspires industry and government to also get involved to support ThinkPlus and the young people who make up Australia's future. Can your company or organisation help?

We await your call.