



KIWAKUKU, Tanzania  
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Children are often expected to reduce their critical thinking ability to simple problem solving

programmes into the formal education system, they may find that they are not encouraged to think too widely, and instead are expected to reduce their critical thinking ability to simple problem solving. The consequence is that valuable contributions to discussions and understandings are lost. Beyond restating the fact that young children can, will and should be encouraged to think critically, it is useful to remember that the 'right' to think critically is upheld by international conventions and agreements. (see page 19).

In the section entitled 'Insights from the field' we show examples of projects that put principles of critical thinking into practice with young children. Although they may not be seen as such, they present clear models of how to promote the capacity of young children for critical thinking, always adapted

to the children's context and the issues that concern them (see page 30).

This edition of *Early Childhood Matters* also introduces a new section called 'Resources', which includes materials and a bibliography that covers both theory and practice on the theme of the edition. This time, the resources are for those who wish to go deeper into critical thinking, and who want to know which other organisations are also working on this theme (see page 38).

*Jim Smale, Teresa Moreno*  
Editors

# Critical thinking

## A brief overview of practice and theory

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The idea that schools should do more than require the rote memorisation of facts and figures has been particularly fashionable over the past 20 years. Children must also learn to analyse and evaluate information and concepts and thereby deal more effectively with everyday life. They need to be able to solve problems and act in creative ways to confront an ever-changing world.

Philosophers and psychologists have provided lengthy deliberations on the subject.<sup>1</sup> Philosophers emphasise the importance of children's exposure to causality and logic, while psychologists focus on the educational process as it relates to each child's physical and emotional development.

According to some of these perspectives, the improvement in children's cognition allows them to produce new ideas and confront problems by reasoning through them. This 'critical thinking' allows children to explore their own concepts, derive conclusions and dispute the reasoning of others. Children might also be encouraged to assess their

thoughts and devise certain kinds of arguments about these thoughts. This sometimes lends itself to an interpretation of critical thinking as a simple enterprise involving rational choice.

However, critical thinking should properly also encompass additional elements, such as the recognition that belief systems – social, ethical, religious, political – affect our consideration of even the simplest issues. Thus, in *How We Think*, John Dewey, already in 1910, called for a child education that also focuses on 'reflective thought'. This would allow for the dynamic, ongoing exploration of any belief or form of knowledge 'in the light of the grounds that support it' and within an endeavour to understand the implications contained in that belief or piece of knowledge. Dewey rejected the knowledge-transmission model and held to a pragmatic theory of inquiry that requires certain skills and a disposition on the part of the child to use these skills.

Critical thinking therefore involves two resources: knowledge and performance. It is a way of thinking that is invested within a way of acting in the world. Critical thinking is not necessarily natural or easy, in Dewey's view, so teaching is essential if one wants to accomplish more than merely pass along received knowledge. This understanding of critical thinking continues to yield significant influence today.

### Is knowledge the same as thinking?

In general, when one says 'I know', one doesn't know, one believes. (Marcel Duchamp)

Why should we bother with children's thinking at all? Isn't it enough if they learn to 'know'? Those who promote critical thinking argue that, of course,

knowing is not enough.<sup>2</sup> Critical thinking is also important. It allows children to understand the facts and the figures, and it provides a space for questioning. Ultimately, it allows children to make better choices, lead better lives and become better citizens.

In the early 1960s, the writings of Robert Ennis swayed the debate with regard to the pedagogy of critical thinking. It was Ennis who first conceived of critical thinking as the correct assessment of statements. Correctness, in this case, means more than academic proficiency. According to Ennis, critical thought is 'dispositional', rather than 'incidental'. By this, he means that it requires a personal investment and good intentions. An educational agenda that contains critical thinking at the core asks children to engage their own beliefs rather than obliging them to provide only correct answers. It requires that children 'care about "getting it right"' so as to come up with the best, most unbiased answer possible in the given circumstances. Critical thinking, Ennis argues, is necessary for the existence of creativity, democracy and modernity in society.

Confronting the actual task of teaching children to think critically generates a host of questions. Should critical thinking be taught as a basic skill? Does it require particular knowledge that is specific to each subject area? And so on.

Two of the main approaches to teaching critical thinking have arisen from such questions. The first is the skills-based approach advanced by Ennis in his book *Critical Thinking* (1996). The approach involves mastering thinking through exercises and then applying it in all aspects of education. The alternative, sometimes known as the 'infusion approach', consists in teaching critical thought in certain domains of the curriculum, but not teaching it as a generalisable skill. This method is proposed by Canadian philosopher John McPeck in *Critical Thinking and Education* (1981).

Thus, for some theorists, critical thinking should occur in any and every situation. For others, reflective thinking and judgement are more circumscribed.

#### A skills-based approach

Skills are important to critical thinking because, once internalised and enacted, these contribute to one's well-being and capacities. Ennis summarises as follows:

Critical thinking is a process, the goal of which is to make reasonable decisions about what to believe and what to do. Because we all are continually making such decisions, critical thinking is important to us in personal and vocational, as well as civic, aspects of our lives.

Critical thinking, then, is important in every aspect of our lives. Ennis elaborates six essential 'elements' for critical thinking. These are 'focus', 'reasons', 'inference', 'situation', 'clarity' and 'overview'. Each of these is a discrete reasoning skill that allows a student to evaluate and judge certain arguments. The student accomplishes this by way of various formal logic tests, credibility criteria, observation, deduction and experimentation. In the end, thinking that is reasonable and reflective is concerned with judging the accuracy and intent of statements, beliefs and actions.

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Ennis tells us that our ability to make a good, reasonable decision, no matter what the situation, can be improved if we are willing to follow certain guidelines (his six elements). However, for all of us who have faced tough choices – whether to continue in school, opt for a day job, take a risk, or play it safe – the ability to make critical calculations in moments of indecision, passion, or indifference might seem elusive. Being reasonable isn't easy, after all.

The skills-based approach championed by Ennis has thus drawn criticism. Notable among the critiques is that developed by John McPeck in his book *Teaching Critical Thinking* (1990).

#### An infusion approach

McPeck argues that there is no significant body of general skills in critical thinking that can be taught.

'We have not, to my knowledge, recently discovered any new miracle cure for the long-standing frailty of human judgement,' he writes. He suggests that the subject-specific forms of inquiry in which we engage have too little common ground for us to extract a single logic that can be gainfully taught as a subject in its own right, a set of thinking skills that must be learned. Instead, he asks us to consider for whom and for what we are interested in developing an educational programme with a critical thinking agenda. He maintains that critical thinking is most efficaciously taught through traditional academic disciplines. He wishes to direct our attention away from generic processes of reasoning toward content-driven thought.

... if you conceive of critical thinking (as I do) as subject-specific, ... when you introduce such a programme is determined in large measure by what you are introducing. Since critical thinking, in my view, is parasitic upon the disciplines, it follows that you should not introduce it until students know something about the disciplines. Anything worthy of the name 'critical thinking' cannot exist in a subject-matter vacuum.

For McPeck, good reasoning on one topic is not necessarily indicative of critical thinking abilities in general. Failure to make a good decision, in his framework, is most often attributable to poor information, not to faulty judgement. It would be difficult to think critically about something such as stem-cell research if one has no knowledge of the subject. In fact, McPeck maintains, for most situations, common sense is sufficient, and no special skills are required. A certain 'reasoned

According to academicians, critical thinking is important in every aspect of our lives



PACOS, Malaysia  
Photo: Courtesy PACOS

scepticism' can only be developed on the basis of subject-specific principles and skills.

McPeck and Ennis do seem to agree that students need to learn how, not what, to think. The disagreement, then, is over the way to go about this task most effectively. They also seem to suggest that critical thinking is the domain of adolescents and adults. Indeed, learning programmes that explicitly incorporate critical thinking are most often found at universities or in adult education. So, it is appropriate to consider the critical capabilities of children, especially young children, for our purposes. Are young children able to think critically about problems?

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#### In dialogue with children

In a series of eloquent essays compiled in *Philosophy and the Young Child* (1980) and *The Philosophy of Childhood* (1994), Gareth Matthews articulates a clear case for the 'thoughtfulness' of children. Through careful documentation of his own conversations with children, Matthews explores puzzlement, play and reasoning in the youngest minds. In his serious attempts to understand children's struggles with language, meaning and logic, he discovers ways to challenge widely accepted assumptions about cognitive development.

'[T]here is impressive evidence of persistence and continuity in the thinking of [children] as some of the fruits of relatively sustained reflection and inquiry', Matthews concludes in his analysis of everyday anecdotes involving children and justice, rights and memories. Thus, according to Matthews, any concept that rules, on solely theoretical grounds, that children cannot think critically because their thinking is immature and inconsequential is certainly misguided. Children test and check, question and probe on a regular basis in order to understand and engage with the world around them. They narrate stories, and they act.

Most analyses of critical thinking, including the philosophy of childhood advanced by Matthews, focus on cerebral processes and mental capacities. Often, this focus comes at the expense of attention to social and economic conditions and other contextual considerations.

In her study *Traditional Healers and Childhood in Zimbabwe* (1996), anthropologist Pamela Reynolds describes ways in which knowledge can be transmitted across generations, and investigates how children develop knowledge about themselves. She demonstrates that children as young as six can acquire technical comprehension of medical materials, as well as an understanding of themselves, through their relationship with traditional healers in their families.

Reynolds tells the story of a trip she took with a healer to hunt for medicinal herbs. They were accompanied by the healer's two young granddaughters. She describes how the children followed their elderly grandmother through the woods.

Once, when [the young girl] admitted to forgetting the name of a bush, her grandmother said, 'How can you keep forgetting? I am going to die soon.' The girl laughed shyly and repeated the name [of the bush] after her grandmother.

The repetition – of names, of rituals, of incantations – became an exercise that reinforced critical knowledge among the children. Reynolds shows that, as the traditional healing is applied to and by children, it produces inquisitiveness and expertise. Her detailed ethnography suggests that a comprehensive understanding of critical thinking must account for more than cognitive capacity; it must also consider beliefs, customs and rituals.

#### Thinking in practice

The purpose of this article is to stimulate dialogue about the facets of critical thinking, but these are ultimately most easily understood in action. Academic debates on the topic of critical thinking too often succumb to disagreement and discord. Nonetheless, the concept has inspired pedagogic advances and good practices in all parts of the world.



The repetition of names, rituals, incantations may become an exercise that reinforces critical knowledge among children

Two projects designed to stimulate critical thinking in children are worth mentioning. The first, reviewed in this issue of *Early Childhood Matters*, is the Maya Isaan Bright Child Project in Thailand. In an effort to move away from the 'chalk-and-talk' approach to schooling that dominates in the Thai system, the project employs critical and creative thinking, touch and performance so as to balance the physical and emotional needs of children. Critical thinking is one element in a wide range of skills that the child develops. Critical thinking, in the Thai context, is understood by way of the Buddhist metaphor of suffering. To know your own suffering, you must identify it and analyse it. You take responsibility for addressing your suffering and initiating action. The Maya-Isaan staff have found that children are adept at combining thinking and practice, while incorporating their own beliefs as they progress.

The second project is based on an interactive computer programme, *The Six Pillars of Character*, which is produced by David Elkind, Kristin McGinn, and Mike Thompson.<sup>3</sup> The project aimed to give young people the opportunity to learn, reflect, and act. The programme deals explicitly with six aspects of character: respect, responsibility, fairness, caring, citizenship, and trustworthiness; and presents them with a rich visual and audio environment from which they can choose a variety of activities. On offer in the six-CD package are a number of short documentary films, essays, vignettes, current events, interviews, and moderated discussions between teenagers. Many of the items feature young people as protagonists.

For example the programme on 'responsibility' shows a young woman named Lateefah from a poor neighbourhood, who is putting herself through medical school by working in the Center for Young

Women's Development. In the course of listening to Lateefah's story we discover that, at a very young age, she had a child. Now she is struggling to educate herself, hold a job, and care for her tiny daughter. A teenager using the computer programme can hear Lateefah's words and watch her in a small apartment with her child. They can enter a journal, which is part of the programme, to reflect upon Lateefah's choices and the ways in which she now chooses to live her life. The presentation challenges many commonly held assumptions about what constitutes responsible behaviour, and asks young people to make their own judgements.

The programme also offers up present-day problems, such as the legal case against the tobacco industry in the United States and the fairness of generic drug production in South Africa. The user is encouraged to navigate the programme freely, writing, listening, and watching at will. The problems portrayed demand consideration based on thoughtfulness and contemplation.

In practice there is no simple correct response, no fixed answer. Instead children are offered the opportunity to reflect upon their own beliefs, prejudices, knowledge, interests, and aspirations. They might come to realise that many people, like themselves, make hard choices each day; and perhaps they will also come to confront their own difficulties in a new way. Although aimed at older children, the programme closely parallels approaches held to be appropriate for younger children too.

#### Notes

1. See, for example, the work of psychologist Robert Coles on the moral, political, and religious lives of children; or the work of philosophers Richard Rorty and Jacques Derrida on thinking and action.
2. In the literature on critical thinking important issues surface about what kind of knowledge we produce and whether any knowledge, in the process of its creation, is dependent upon one's position and interests.
3. See 'Character Counts' at [www.charactercounts.org](http://www.charactercounts.org)

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## The Isaan Bright Child Programme

# Teaching young children to ask why and discover how

*Human beings, children or adults, are able to protect themselves by their own capable thinking. Only if we encourage children to think, or provide them a chance to develop their critical thinking skills then they can protect themselves. And it is not only our belief; it is the truth.*

Santi Chitrachinda, Artistic Director, MAYA

The Isaan Bright Child Programme is a creative and participatory programme that is transforming the nature of preschool, kindergarten and early primary education in Thailand. The programme promotes an entirely new approach to teaching and learning, which allows preschool teachers to help young children to develop critical thinking skills. The programme focuses on teachers and schools in the Northeast (Isaan) and the North of Thailand, two of the least developed regions in the country.

The programme involves more than just a methodology; it also provides teachers with tools to work with and an institutional structure through which they can support each other and reach out to others. It helps preschool teachers to develop the capacity to make their own lesson plans and to actively participate in networks of teachers. These teachers' networks are the driving forces behind the success of this programme. For instance, the network in the Isaan region, where the programme initially started, is now playing an active role in the process of mobilising the Northern teachers' network.

The Programme has three central aspects: supporting young children in developing their critical thinking skills; local curriculum development that is appropriate to the specific culture and language; and teacher training and networking.

In this interview, MAYA's Programme Director Somsak Kanha and its Artistic Director Santi Chitrachinda respond to questions about how MAYA

works with teachers and local communities to help give preschool children a better start, and how it has applied the concept of critical thinking in the specific context of education in Thailand. And, as they do so, they bring out the complexity of MAYA's work and all that underpins it.

*ECM: The Isaan Bright Child Programme has its roots in the Bright Child 2000 Programme, which MAYA set up with the support of the Bernard van Leer Foundation in the slum areas of Bangkok. Why did MAYA choose to extend the Bright Child Programme to Isaan and to the Northern region, and what new challenges did this present?*

MAYA: We decided to extend Bright Child to Isaan because it is one of the poorest areas in Thailand and many of the slum dwellers in Bangkok originally came from there. Isaan is a large open area where distances are much greater than in the crowded slums of Bangkok. It also meant dealing directly with the Ministry of Education, rather than the municipal authorities. And we had to address a different group of people. In the slum areas, there are few trained teachers, especially at preschool level. Very often mothers take it upon themselves to look after groups of children. In Isaan, we were working with formally trained teachers, so our approach was slightly different. But, in effect, we were faced with similar problems in both cases: we had to convince people that they were capable of taking effective action themselves to improve the prospects of preschool children.

Despite the challenges of the new context, the programme in Isaan moved forward more quickly than we expected. We originally planned to try it out in one province for the first year and then extend it to the other 19 provinces in the region in the second and third years. We actually completed that in two years, so – because teachers in the North had heard about the programme and wanted to know why it wasn't being implemented in their region, too – we