

# Training young brains

Bristol University professor Guy Claxton talks to **SARAH EVANS**  
about the intellectual equivalent of barbells and weight machines

**V**ISITING British academic Guy Claxton is the Les Mills of the education world. He's not brawny, and more likely to be sporting a business rather than a track suit, but Claxton is big on the importance of "mind fitness" for young people and pumped up about the value of training students to be lifelong learners.

A guest speaker at the recent New Zealand Council for Educational Research conference in Wellington, Claxton is an advocate of "learning to learn" – an educational philosophy which recognises instilling a love of learning in students as more important than teaching them specific knowledge.

In Claxton's ideal world, schools would operate like gyms where the objective was mind fitness and students would sweat their way through activities which cultivated habits and attitudes enabling them to face adversity and uncertainty calmly, confidently and creatively.

Teachers in such classrooms would be learning coaches – allies in the eyes of the students – and focused on stretching, challenging and motivating students to realise their potential.

Claxton says building learning power or "learnacy" is imperative in today's complex society where skills such as resourcefulness, innovation, resilience and relationship building are essential preparation for a lifetime of change.

He says students who are confident of their own learning ability learn faster and more effectively, concentrate and think harder and find learning more enjoyable.

In addition, students who learn well do better in assessment and are easier and more satisfying to teach.

Claxton says the traditional education system based on achievement through testing students' knowledge is quickly losing relevance for young people and teachers in the 21st century. He says the increased pressure placed on schools to produce good academic grades is more likely to result in students being towed through school by their teachers rather than encouraging innovative learners who have the necessary problem solving skills for success beyond the school gates.

Many secondary graduates are confident about being tested on their knowledge of the school curriculum but are less confident about the tests of life, he says.

Claxton acknowledges there is a place for curriculum content in schools, in that students need to have something to learn about. But nobody knows what knowledge will be required in the future so it is senseless to try and teach it, he says.

He says the changes required of schools so they focus on building students' learning power can proceed without ditching content in the process.

A fellow of the British Psychological Society, Claxton is currently visiting professor of learning science and director of development of the research initiative on culture and learning in organisations at the University of Bristol's graduate school of education.

Claxton's academic background is in experimental psychology and his early research was on the mind's structure and how people draw upon knowledge.

He says he quickly became interested in the capacity of the mind to expand beyond the influence of memory alone, while his counselling and psychotherapy work revealed how people can expand the emotional capacity of their mind, including how they can learn to be less afraid of things they once feared.

Claxton says his subsequent work in education fueled an interest in helping students to expand their minds to make them more supple, stronger, useful and powerful.

Referring again to the school curriculum, he says content should be regarded as similar in function to gym equipment.

"One way of misunderstanding it [gym equipment] is you go in there and study it, figure out how it works and learn the history of it.

"But the point is actually getting on the treadmill, to start running and make use of it – so what we need to give kids are things that will stretch them as well as things that are intrinsically interesting or that the culture values in its own right."

He says there is a lot of "stuff" that gets jammed into the curriculum,



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(some of which has to try very hard to justify its place in today's world), and the curriculum needs to become less crowded to enable more effective learning.

Claxton says one of the enemies of developing learning muscles is the idea of "coverage". The pressure placed on teachers to deliver the curriculum as fast as possible has the same limited effect on students' learning as exercise has on the fitness of someone who spends their gym session running from one machine to another and taking just 30 seconds on each to ensure all the equipment is used.

Like fitness, quality learning takes time, he says.

Claxton says the exercise analogy for learning is an important one because the idea of school as a mind gym hooks students' interest because many young people associate gym work as something cool.

In addition, he says the exercise metaphor enables teachers to inject humour into the classroom when introducing learnacy strategies.

"You can use the analogy to have a joke with the kids by saying you wouldn't go to the gym and lie down and have a rest so why do that at school – this is the mind gym.

"It's amazing how even with just opening that up as conversation with kids how you can shift the atmosphere of what is going on in the classroom.

"Teachers may need a few little devices to help them but they [students] get it and get it [the concept of the mind gym] very fast and sometimes faster than teachers"

Knowing what to do when you don't know what to do is at the heart of learning to learn. One of the ways teachers can encourage learnacy among their students is to get them to vocalise the process they adopt when trying to work out a word's meaning, solve a sum or the like, and to share with their peers their stories of trial and tribulation in problem solving, he says.

Claxton says such an interactive approach can extend to teachers modeling the same behaviour when they are uncertain about the answer to a student's question.

He says he used to run a teacher training course in London a decade ago and if he knew then what he knows about building learning today,

a lot of emphasis would have gone on coaching teachers to model what they taught.

Teachers should never feel embarrassed to admit they are unsure about an answer but instead should turn the experience into something positive by saying to the student 'that's a good question, I don't have to know everything but one of the things I am good at is finding out,' Claxton says.

He says such a response allows students to see a teacher's human side and reinforces the message it is okay to be uncertain.

Claxton says the idea of the teacher as a learner contradicts what has traditionally been considered good teaching practice. That is, the idea that a teacher has to continuously model themselves as someone who is a "knower". Unfortunately some teachers feel caught out by a gap in their knowledge, become anxious, and "rather obsessive", telling students to "shut up and get on with your work".

**“T**HERE are some who come out of their teacher training course who still think it's their job to be omniscient and if they aren't they will lose respect.”

Claxton says it is important teachers feel confident enough to admit when they are uncertain because more important than presenting a fact is having students observe the process a teacher adopts to solve the problem.

“So instead of presenting this view that learning is a matter, more or less, of excellent product it's actually a matter of struggle, a matter of trying and getting things wrong, a matter of redrafting, a matter of practising.”

Claxton acknowledges teachers' modeling approach to problem solving needs to be phased in and handled with care and that it is ideally done with the understanding and support of a school's board of trustees and students' parents.

Another strategy to build students' learning is to get them to teach their peers, and even their teachers, about something that they enjoy and feel confident sharing Claxton says.

He says to accommodate such a learning environment, schools can adjust their timetable to allow one or even half a day each week for students to teach or observe an activity of their choice.

Claxton describes such a day as "meaty" in that students can really get their teeth into an activity of their choice.

"A number of schools I work with [in the United Kingdom] have a range of options – everybody can offer to be a teacher or tutor and you can go into a class on a 'meaty day' and find two or three teachers as students in a class that is being taught by someone who has got to level eight on Playstation!

"Teaching is a very powerful way of learning in its own right and it's very good particularly for kids not succeeding in the traditional curriculum to feel they have something they can teach.

"It gets them to feel much more engaged with school and they feel they have some sense of ownership or belonging there, which often they don't get when all that happens to them day after day is they are told they are not very good at doing that stuff."

Claxton says learning to learn can start as early as preschool and New Zealand's early childhood curriculum, Te Whariki, has made a good start in that it was developed around social and learning dispositions, a sense of belonging, and finding things out.

He says there are enough seeds of good practice, research from cognitive science and neuroscience, and concern from parents and policy makers about how to best prepare young minds for the demands of a modern world, for learning to learn to take off.

**H**E says there are currently 30 schools in the United Kingdom undertaking a pilot study on learning to learn and there is a lot of enthusiasm about the idea.

"There are a number of teachers who are really hungry for knowledge on how they can be a better learning coach and I rarely meet any teachers (and I meet hundreds in the course of a week) who do not sign up to this."

However, Claxton says parents need to have the principles of learnacy explained to them because, regardless of whether their own school experience was positive or negative, at the back of most of their minds is an acceptance that schools should not change.

Once that explanation is done, Claxton says parents tend to be very enthusiastic. "They sign up in droves and say: 'How can we build partnerships in this? How can I support you in not just making sure my daughter forms her letters neatly but in noticing and encouraging those leading edge moments of resilience or stickability or learning well with someone else?'"

Claxton says learning to learn is set to explode in popularity as more people understand its contribution to real-life smartness and its personal and social advantage for young citizens.

"If we can accept minds, like bodies can get fitter, then perhaps education should be the business of mind development not mind filling."