

# Why the angst and the gnashing of teeth with tests? Tests are an inevitable, universal part of life

*Dr Ragnar Purje* says tests advance and enhance neurological rewiring, which provides the potential for cognitive and intellectual insights to not only advance knowledge and understanding but also to have the capacity to advance resilience potential for students

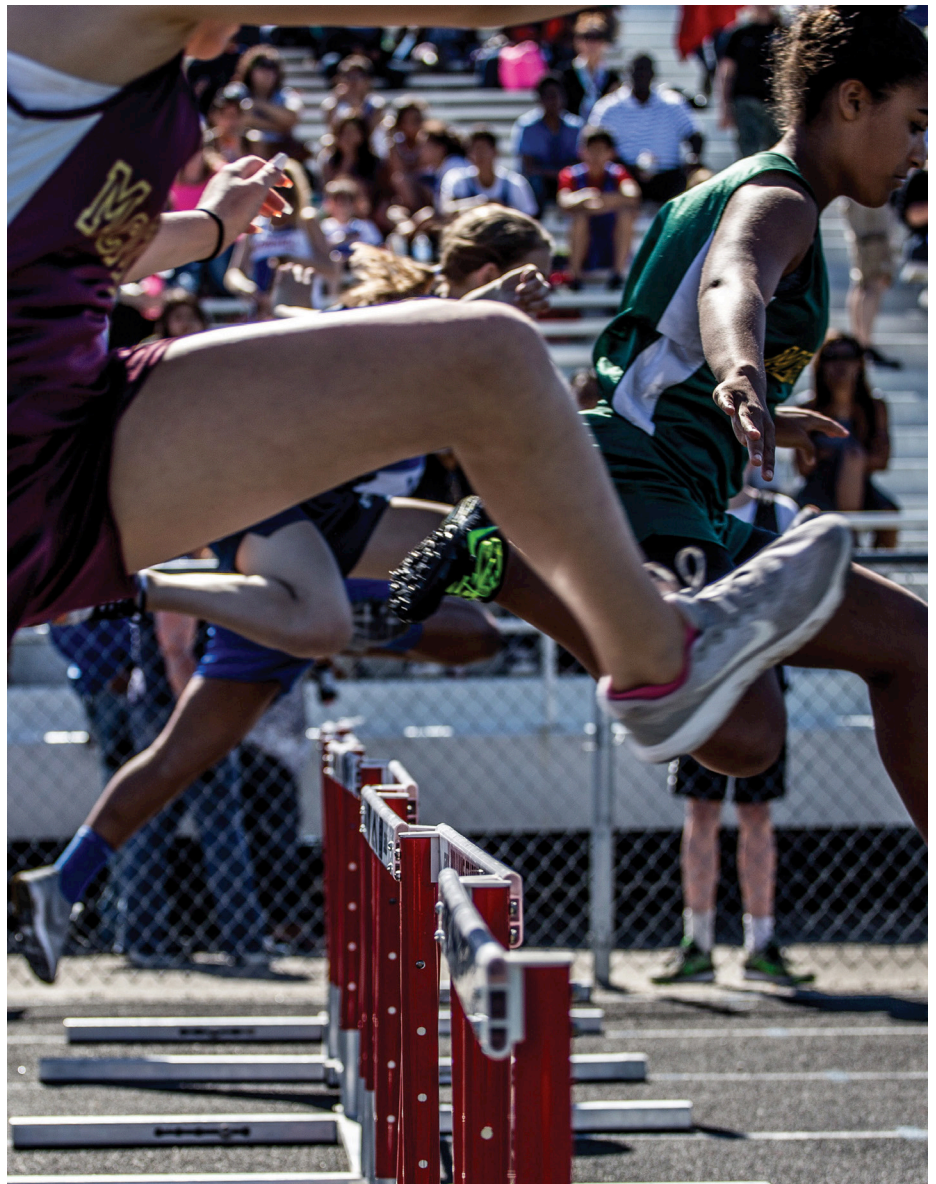
**A**chievement, excellence and success are never a coincidence; success is crafted by personal discipline, dedication, determination hard work and unrelenting passion.

## **Let's celebrate tests: Because tests advance – and have always advanced – the universal human condition**

It is through the process of engaging and extending mental and motor function through the application of self-directing tests is what advances the mind and the body (the hólós). Tests are a universal inevitable part of life. Self-explorative, self-extending self-improvement tests are genetically 'hardwired' in the brain. This self-extending and self-testing is a DNA brain-based imperative because 'the brain knows' that it needs this process of self-exploration and self-testing (both through thinking and movement), to advance the universal human condition. If that were not the case, none of us would be reading these words.

## **The unity of mind and body is an objective reality**

As noted by Donald Hebb "Neurons that fire together wire together," and, equally: "Neurons that fire apart wire apart." Which means, that if the brain and body is not being used and extended, the brain does its own pruning of the neurons that are not being used.



### Children have been testing themselves forever

Universally, children begin exploring and testing themselves from the moment they are born. If you watch children at play, once they have explored and completed a particular movement, what do they do? They immediately begin to think and to physically search how they can further extend themselves. Self-testing is an axiomatic imperative. If this was not taking place, the brain and the body (the *hólos*) would never advance.

### The brain and body

The *hólos* is a descriptor which unifies the brain and the body, with one word. Prior to this the brain and the body had always been referred to as two separate entities, i.e. the brain and the body. *Hólos* derives from the Greek: *όλος* – *ólos*. The English word *holistic* is derived from *hólos*. *Holistic* and *hólos* offer the same classification. *Holistic* and *hólos* incorporate the concept of *holism*.

Norman Doidge reporting on the movement therapy work of Moshé Feldenkrais concluded “that the unity of mind and body is an objective reality, that these entities are not related to each other in one fashion or another, but are an inseparable whole. To put this more clearly: I contend that a brain could not think without motor functions.” Guy Claxton adds to this important brain and body (*hólos*) unity by stating that “we do not *have* bodies; we *are* bodies. If my body was different, I would be different ... I am smart precisely because I am a body. I don't own it or inhabit it; from it, I arise.” The *hólos* (the brain and body) “is designed to blend all” internal and external “influences together” in one seamless operating *holistic* entity. This means that all tissues and cells, which include neuro and glial transmitters, electrical transmissions, hormones, ions, molecules, organs and more – of the brain and body – play a role in the way our body moves, thinks and feels, and how we perceive and interact with our internal world and external world.

### At a time and a land far far away

I once held the position of a senior administrator at an international school. The school had a large student population from all of the continents, except Antarctica. There was a mix of some 80 different nationalities, which included teachers and the administration and ancillary staff. The curriculum began at kindergarten and progressed through to Year 13. Year 13 was the equivalent of first year university.

### Social, emotional and intellectual maturity

Within a very short time of my arrival, it soon became obvious to me that the students were behaving differently to what I had previously encountered. The words to describe this behaviour would be social, emotional and intellectual maturity. This maturity of the students was expressed through their thoughtful conversations and their respectful well-mannered social behaviours.

This broad-based social and intellectual maturity intrigued me. The school was not selecting students according to any particular restricted socio-economic criteria. Neither was the school selecting students according to any particular ‘superior’ academic standards.

### Empirical phenomenological qualitative study

This led me to wanting to find out why these students were presenting this conversational, social and intellectual maturity. In my role as Supervisor of Students and Teachers (a position equivalent to that of a Deputy Principal), I had the perfect opportunity to undertake my own empirical phenomenological qualitative study. This role involved monitoring student academic achievements and associated social behaviours, from Years 7 through to 10; and also observing and assessing the Year 7 to 10 teachers.

As my research progressed, it became obvious to me why these students were presenting at (at school) in such an advanced social maturity. It had to do with what the students were doing in the classroom and what the school was doing overall. In their classrooms, the students were applying themselves to their studies. What was associated with this was a significant surprise to me. From Year 7 through to Year 10, the school conducted the equivalent of a weekly two-hour examination, which tested work undertaken the previous week.

### No anxiety. No protests

From my observations, these weekly exams were not seen as anything special, or as an imposition by the teachers, the students, or their parents. There were no presentations of concern ‘anxiety type’ of behaviours from any of the students. There were no protests from the parents. None of the parents ever kept their children from the school on the day of these weekly exams.

### Strategies and support

In terms of results, these weekly exams presented computerised outcomes and data, which was then presented to the Director of the school, the supervisors, the teachers, and, of course, the students. These results informed the administration team, the teachers, and the students as to which students were or were not passing. The pass mark at the weekly exams was fifty-percent. Any Year 7 to Year 10 student who was not passing was directed to my attention. My role was to then meet with the student and the parents, and also with the teacher, to talk about the results of the exam and to discuss why the student was not passing, and, with this, to also map out strategies, the aim which was to advance learning mechanisms to help and support the student to pass these exams; and, at the same time, to also provide any further social support as required.

During the course of these conversations, I always and regularly asked the students the parents, and teachers, what they thought of these weekly two-hour exams. The response was positive. The view was that these weekly exams assisted the students to advance their knowledge and to receive immediate feedback in relation to their understanding and overall progress in the subjects they were studying.

An added surprise to me was that if any student failed their weekly exam, there was a school requirement to then attend a Saturday 30-minute catch-up test (on the same subject matter). The pass mark for this Saturday ‘catch-up’ test was set at 80%. All of the tests were, again based on what the students’ studied during the previous week, as well as information that was presented in their weekly two-hour exam. The exams and tests were all academically and statistically reliable and valid.



All of the parents, teachers and students I engaged with also told me that these weekly Saturday catch-up tests were equally important as it helped to revisit and reinforce the subject matter being studied.

Another surprise to me was the feature of the daily after school study sessions for the students who were not passing. These afterschool lessons were conducted by teachers, with additional peer support. These volunteering 'teaching peers' also caught me by surprise. I asked these volunteering 'teaching peers' why they were attending and spending their time helping and teaching others? These 'teaching peers' told me that they loved helping. They also told me it would help in advancing their skills and knowledge in leadership potential. I asked how this would be the case? "All leaders need to know how to listen, to teach, to help and support others." "What a great definition of leadership," I thought.

I also asked these 'teaching peers' what they thought of these weekly tests and after school study requirements? They all said these weekly tests were important because it provided immediate feedback on their knowledge progression. And the daily after school study sessions was no different to any form of training in sport, or practice sessions in music, maths or the arts. And in terms of the weekly tests, all the 'teaching peers' I talked with told me: "These weekly tests helped everyone to immediately identify any problems, which can then be directly acted upon. As one of these 'teaching peers' said to me: "I would hate to be going into an end of year exam without these weekly tests, and the knowledge and regular feedback I've received from my weekly exams."

### **Everyday thought, when used systematically, stimulates neurons**

As Doidge points out: "Everyday thought, especially when used systematically, is a potent way to stimulate neurons" which not only rewires the brain, it also changes thinking and behaviours. The key application for this rewiring to occur in the first place is that the thinking and action needs

to be deliberate and effortful, and it needs to be employed regularly and systematically. When this takes place, greater cognitive and behavioural mind/body (hólos) advancements are much more likely to occur. With this power and with this hólos development taking place, students will be much more likely to be successful and move towards becoming independent, self-managing, confident competent learners. This then is the way that these students at this international school presented such mature behaviour.

### **Neuropower**

In terms of neurological power; with the brain becoming thicker, richer, denser and heavier as there are now more neurons (neurogenesis) and more synapses (synaptogenesis), this would mean there would now be, according to Doidge, "literally trillions more synapses." Trillions of added synapses axiomatically augment the power and to the capacity of the mind.

### **Why the fear and loathing of tests?**

In the words of President Franklin Delano Roosevelt: "The only thing we have to fear is fear itself." So why is there such a 'fear and loathing' of NAPLAN tests? Which is often expressed by students, parents and even some teachers and education administrators. The NAPLAN tests are only one of the instruments which are used in the processes to extend, advance and measure a student's knowledge and skills. There are, of course shortcomings in *all* testing regimes, which, of course includes the NAPLAN test, as noted by Professor Ken Purnell. However, that does not mean tests should be completely abandoned – but the nature and administration of tests might be altered to better reflect its original intent to identify students and schools in need of targeted support in literacy and numeracy.

### **Tests are and have been a forever part of the universal human condition**

Tests are continually taking place in all manner of disciplines. Any number of examples can be used here, sport, music

maths, the arts, the sciences and any other discipline one cares to mention, medicine, surgery, engineering, welding, brick laying, carpentry, and etc. I will focus on football (soccer, rugby (League and Union), Australian Rules). In all of these games of football there is a test taking place every week.

The test is the weekly game between two teams. However, before any player is selected to play in these games – the weekly test – each individual player must engage in the training and learning that takes place before each game. This training will be hard and unrelentingly effortful, the training will stretch each player's physical, mental, emotional and skill-based capacity. All of this training is aimed at extending and advancing knowledge and skill potential. And the expectation is that each player will engage in this process willingly.

The same principle is applicable in literacy and numeracy, or any other academic pursuit. Unless a student personally and willingly applies, him or herself, to do their daily reading 'riting, and 'rithmetic requirements, the brain's neurological system will not develop to provide the student with the complex deep, thick rich brain, with its associated complexity of connections, which creates the mind, and provides the student with the cognitive ability to seamlessly engage with and have the intellectual insights, understanding and knowledge in the subject areas being studied.

Unless personal effort is activated, in the form of daily training and weekly tests, there will be no associated advancement in mental and emotional toughness nor resilience. As alluded to above, if you watch children playing, children are not afraid of tests. So why are children taught to be afraid of tests by adults when they begin school?

### **There are no short cuts to advancing the universal human condition**

There are no mental, physical, neurological or neuromuscular short cuts, in any activity. To develop and advance one's knowledge, skills, understanding, insights, creativity, emotional strength and resilience; all of this requires the application of personal passion, hard work and unrelenting effort. It is this process which fires the neurons to develop all of its immense complexities that leads to the development of a complex and powerful mind and body (hólos).