

(Page 1 of 4) I was an unsuspecting member of the public who allowed my son to select Engineering at a Qld University as his 1st choice. Because of the lack of maths and physics education of his peers, his education towards his degree is now impaired and career jeopardised.

I will first relate the incidents that have motivated this submission, and then address the terms of reference of the inquiry as a passionate teacher of 35 years experience.

I am a small voice in the wilderness on behalf of parents who are ignorant of this inquiry, notice of which came to me via email, there being no evident media coverage.

Background.

My son entered first year engineering last year at a Qld Uni, after education at Tweed River High School, NSW. When asked how he was getting on at his university, his answer has always been, "It's easier than high school"; not, "interesting" or "challenging", just "It's too easy. Studying for the HSC was harder, and better. Uni is too easy".

Last week, events conspired to reveal to me the true and alarming meaning of the comments I have been hearing for the past year.

1. I heard about the inquiry and told him about it, whilst driving to uni.

"You mean to say THAT is why I'm doing an engineering degree with kids who have failed maths?"

"No, they wouldn't have failed because they must have been judged highly to get into engineering."

"They can't do a test! When we started uni we did a simple algebra test. I got 30 /30, but they could not get it right, time and time again, AND TIME AND TIME AGAIN!"

"What scores did they get?"

"7 or 8. One got 27, but even he could NOT fix his mistakes!"

WHAT VALIDITY is there in the outcome of your system in Qld education in maths?

2. Concerned, I phoned his lecturer and year level adviser at Uni who said,

**"High schools are teaching TERTIARY,
and we are teaching HIGH SCHOOL.**

We have to teach a bridging year. These kids haven't done any maths and your son will have to mark time while they catch up."

But will they, and how will they all catch up on the year LOST from their degree?

WHY SHOULD I FUND THE FAILURES OF THE QSA ?

The bridging year isn't working either. Is it too late and has the window of opportunity closed, or are these students ineligible despite their assessment outcomes?

3. Next came a call from a [REDACTED] call centre; despite knowing from my details I had a \$60 bill, I was offered "a better deal at \$70". When asked how he went at primary school, he said, "Actually, I have an engineering degree from USQ, Toowoomba." Sadly, he and 5 others had done extensive work experience with [REDACTED] in their final year, last year, and the understanding was, they would get the next available jobs. When these jobs materialised, all six were passed over for engineers from India and the UK.

This is a vote of no confidence from Industry in QLD university education.

4. Then at [REDACTED], I noticed a yellow shelf tag stating, "20% off. Was \$2 now \$1". None of 3 young staff could see the mistake. The first young man said "I can't do maths. Ask him." The next said, "I don't have a calculator!" The check out girl read it aloud twice and still looked vacuous. I encouraged her. She frowned. ([REDACTED]' bridging classes don't seem to be working either!) I commented that kids should be able to recognise this mistake, and a lady said "Not the keds of today!" I assumed she had a Kiwi accent. Later relating the incident to my son, he informed me, "Mum, Its qeds; Qld-educated dickheads!"

WORD GETS AROUND.

In NSW they say Qld teaches "woolly maths" or is it "Wally maths"? I guess, either way it is not much maths!

Terms of reference

1. Teachers

Teachers have long been unhappy with this system. Resentment and alarm has grown (groan!) as they've realised how seriously flawed it is, that children get A's who have little subject knowledge and even little ability. Deeply concerned teachers and now university educators are telling us of its serious repercussions, and **that we imperatively dispose of QSA's nonsense and their disrespect of the feedback of teachers.** Teachers feel they have to voice their protests anonymously.

The assessment processes are invalid and not supported by teachers because they are **structured in ignorance of Maths Physics and Chemistry**, evidenced by the decline in maths ability and abilities in physics and chemistry. They do not really assess maths skills so these are not really developed. A dumbed down society is easily exploited.

The time frame does not allow for the sequential development of the curriculum through classroom teaching reinforced with homework. Whole areas of maths are left out (these varying from school to school), placing school leavers on an unequal footing. Assessment drives the agenda at the loss of curriculum, (discipline, mentoring etc.)

There is no validity to teachers supporting these assessment processes weighted towards self learning, diminishing the teaching role and demoralising teachers. How many good experienced teachers have already left the system?

Ineffective use of teacher's time. Teachers are being employed grading the work of parents, tutors, and undigested plagiarised snippets. Students blatantly pull the wool over teacher's eyes, what standards are these? The assessment processes are time consuming and do not relate to teaching. Assessment should support teachers. If I wanted to know if my child was competent in maths I would give him some maths. If he couldn't do it, I would help him with understanding and the skills needed. I would not ask him to "demonstrate a competency" by writing 1500 words so that I could then grade 49 criteria on an A to E scale, and then use this to judge if he could do the maths. Then translating it back to him, I'd have to forgive him for thinking I was an idiot. Don't we want our kids to respect our teachers? Kids want teachers to teach them.

Time constraints imposed by the weird QSA assessment processes prevent teachers from developing the disciplines – structuring lessons and homework to build ability and the sense of achievement, inspiring students with enthusiasm and joy for the subject, building rapport with and mentoring of the students. Instead, students do long assignments in limited groups.

The current assessment processes are futile with no meaningful outcome, and detract from quality teaching.

QSA has forcefully implemented an unsatisfactory and flawed assessment process that leads to a decrease in standards so of course teachers do not support it.

Teachers know it is bad for education, and wrong for students, not to even mention the "unmanageable complexity".

2. Student participation levels

Inquiry based learning in maths deters students from enrolling in advanced maths or physics. Careers advisors tell children it is too hard for them and not to take it, when they have not been taught a skill set and have had little experience with the subject. (Cheated again)

The literary approach to maths contradicts the trend in high schools to engage students through Employment Pathways- knowledge and skill based education. The literary approach has no relevance to university Engineering and Science degree courses, as we see by the necessity of the wasted bridging year where, these faculties are forced to teach high school maths for the first year. Why is there no employment pathway for students who want to engage in a university degree in an engineering or science course?

Age-inappropriate tertiary style learning disengages students, creating a sad dynamic. I've heard of students calling out "Who cares?" from the back of the classroom, because the assessment is weighted towards self learning and the impact (and value) of teachers is diminished. We all know how classroom dynamics can facilitate learning. It is an active and interactive environment, listening, questioning, responding, brainstorming, energising, empowering and uplifting others that inspires maximum participation, productivity and creativity. 'Where attention, goes energy flows'. The power of a group can charge a room. Once, simply correcting maths homework, I remember an electrifying exchange of "yes it is," "no it isn't", and an American visitor to the class, present for the morning, said it had been "thrilling" to experience this kind of engagement. Competition is a part of this dynamic. Marks and percentages create an immediate dynamic which students will always engage with-how they compare with others, and improvement needed. Numerical marking speaks volumes to a student, and this is the system universities use in assessment. Students like to learn alongside their peers, and this is the efficient and rewarding way to teach. Individual mentoring also happens in this environment. Children are missing out on this when the EEI'S and ERT's are the focus of class time and teaching. QSA assessment processes require students to use higher learning skills without first attaining the basics (crazy), while some do not even have this ability. (crazier) Students are working under undue stress which is disheartening.

The system is weighted towards English which contradicts the educational principle of Multiple Intelligences. (Logical mathematical, spatial, linguistic, bodily kinaesthetic, musical, interpersonal, intrapersonal, naturalistic, and existential intelligences have to be equally recognised).

Students hate unfairness and yet this system is open to cheating, interpretation, discrepancies and inequities.

Students and parents are misled by QSA grading, perceiving a standard which is actually ineffectual. They do not have a knowledge base for their future, nor do they have a true prerequisite to tertiary study as QSA assessment processes do not match university assessment in Maths, Physics and Chemistry. They do not indicate any ability with the subject at all. How can you justify a lengthy maths assessment of an A from a student who barely has any knowledge of maths and its usage. It could be fun, but it can't be part of the assessment.

3. **THE ASSESSMENT PROCESSES CANNOT MAKE VALID/ RELIABLE JUDGEMENTS RE STUDENT OUTCOMES.**

There is no VALIDITY to judge student outcomes in QSA assessment processes which deeply embed SOCIAL JUSTICE ISSUES

– discrimination, inequity, non inclusivity, unfairness...

-failing society –industry, universities, employment prospects, future teaching ability in maths , physics and chemistry...

Outcomes are not reliable: Students get A's and yet

RESULTS SPEAK FOR THEMSELVES! – Qld standards are lower than in other states and countries.

-Qld Universities have to teach a bridging year to the detriment of their course and credentials.

INVALID AND UNRELIABLE to judge outcomes because the assessments do not tell us what kids know / don't know.

There is no object to it. The subjective assessment of maths is ridiculous.

The assessment processes do not judge outcomes; teachers and panels do. The criteria are subject to interpretation and therefore incomprehensible even to teachers and panels of teachers.

The assessment processes and the work covered are far too narrow and therefore invalid to assess outcomes.

The assessment processes cannot reliably authenticate a student's work. They are supported by people who see the INBUILT ADVANTAGE to their own, or their children's, or their class', or their school's success, as they are fraught with cheating and dishonesty (plagiarising, paying tutors, copying past assignments...). Also, the consultative nature of the assignment demands that teachers steer the assignment toward the A criteria. Teacher assistance drives the assignment.

The other component, the internal test, is inherently invalid to judge outcomes because teachers will teach to the test.

The current processes are totally invalid because they do not judge real outcomes- the knowledge and skills of Maths, Physics and Chemistry in preparation for society (including tertiary education). They are not synonymous with success or ability in maths and do not determine a standard of education. They are **autonomously** prescribed by the QSA, denying input from society, industry and university which was a career path.

In conclusion, there is no validity to QSA Assessment processes in Maths, Physics and Chemistry. Queensland no longer has a world class system, but a low class system, ranked well below other states and countries. It is an ineffectual and invalid, failing to connect to society, industry and further education. **There are so many variables and even the final standards are variable.**

Simply: External exams would eliminate all this and get teachers teaching and students learning, and you can't do better than that. We need to return sanity and clarity to Queensland teaching while we still have teachers of the highest calibre and ability, and in so doing, restore the status of Engineering and Science Faculties in Queensland Universities.

Thank you for reading my submission.

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