Helicopters and Bulldozers – at what price?

BY ERICA MCLEAN

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This reflection arises from what I perceive to be a distinct and pervasive conflict between the 'wants' of students and parents, and the educational outcomes that we, as professional educators, endeavour to achieve in our classes. I will focus on Science subjects and the challenges Science educators face, particularly in Year 11 and 12 teaching, learning and assessment. Facilitated risk-taking, the value of the unanswered question, and the need for students to respond to the ups and downs of school life with confidence, will be my particular focus.

We have all heard of 'helicopter' parents, that tongue-in-cheek reference to those who hover closely above anyone who has a connection with their children, scrutinising – intensely and subjectively - every move. There are also the 'bulldozers', those parents and guardians who use every forceful tactic to remove obstacles that may cause any concern to their sons and daughters. This concept of a heavily supervised, much guided, totally protected, 'no stress', extremely 'flat' and comfortably soft utopian academic playground has no corollary in real life. I will define this as 'helidozing'.

This behaviour is not unique to a particular school or to schools in general. It can be observed in many different contexts, such as sporting organisations and teams, the political arena, social groups, administrations and work places; only the protagonists differ. My major apprehension is that the helidozing practice of *smoothing the educational pathway* can and will impinge upon our teaching. This is a direct consequence of clients demanding a non-stress school life coupled powerfully with the expectation of an extremely high academic achievement for their daughters. The effect on teaching pedagogy is harmful in the extreme: to a whole school community, to the integrity of educators, to the transparency required to fulfil Queensland Studies Authority syllabus requirements, to teacher professionalism and, most of all, to the students whose progress we foster so diligently in order to prepare them comprehensively for life, both at and after school.

One of the contentious assessments that can provoke parental 'helidozing', cries of "I'm so stressed" by students, visits to the counsellors and Heads of Year, and very angst-filled conversations between parents and teachers, is the Extended Experimental Investigation, a task type which is mandated in Biology, Chemistry and Physics syllabuses. I am a passionate advocate of this type of assessment. It is an assessment *as, for* and *of* learning. Students need to develop time and task management approaches, access and interpret a wide range of information sources, and work collaboratively with a partner or group. They need to plan, design and implement logical procedures and strategies, use class time efficiently and effectively, and accept proactively the advice and guidance offered by their teachers. These abilities are carefully fostered in Middle School and in Years 10 and 11. By Year 12, the facilitation by teachers is still consistent and ongoing, but the step-by-step scaffolding, detailed checklists, modelling of 'correct' formats and reports, provision of exemplars and meticulous correction of drafts *must* be scaled down. Although all of these provisions are valid, effective and significant aspects of the teaching and learning process in earlier years, removing the rigour and flattening the territory for Year 12 students in this regard, will not allow them to demonstrate the evidence required by the QSA syllabuses to be allocated an A or B standard. Parents and concerned individuals who maintain that many schools are asking for a higher cognitive level than is required in most first-year University courses, where regurgitation of large quantities of content is normal in assessment, are absolutely correct! However QSA syllabuses are not designed to mimic first-year University studies and nor should they.

Professor Fred D'Agostino, Associate Dean of Arts (Academic) at the University of Queensland, has visited over fifty feeder schools, interrogated UQ and QTAC student data, debriefed first year co-ordinators and interviewed or surveyed many first year students. He visited our Curriculum Committee earlier this year to discuss the secondary-tertiary transition, and has been kind enough to correspond with me on my concerns about the effects of 'helidozing' on the long- term academic success of students after leaving school.

The following table is copied from a Principal's Briefing Paper he shared with me:

Year Twelve	First year university
attention from teachers	anonymous interactions with teachers
student-centred learning	directed learning
small classes	large classes
nuturant environment	bureaucratic, impersonal environment
continual feedback	limited, episodic feedback
'You're a person with a story'	'You're a number with a file'
'Village'	'City'

He comments that the difference is magnified in students who come from independent schools owing to the high level of facilitation employed within the school structure. Although his evidence is based mainly on Arts degree

students, he has found it translates well into Science and other disciplines. Critical issues which influence tertiary attainment include ability in secondary English, report-writing skills and proficiency in using a wide range of information sources – not just the Google searches that some students emphatically tell parents are necessary as 'homework' until 2.00am in the morning.

At Somerville House, we believe that we owe this to our students: to give them opportunities to be leaders in their fields, principals in their communities and insightful participants in future world decision-making. We must empower them with the strength to overcome perceived adversity and make the best of the lifelong learning that will equip them for life outside of the safety of the school environment. This cannot be expedited by a helicopter bulldozer mind-set on the part of parents or an educational institution.

Student self-confidence, planning and co-ordination skills, control of procedures, composure in the face of difficulty, and persistence or tenacity in tasks, are seen to improve student resilience and to predict 'three educational and psychological 'outcomes': enjoyment of school, class participation, and general self-esteem.'(Martin, Walsh: 2006). Fear of failure exacerbates anxiety, and students need to learn that effort and determination are important in achieving goals, and that the inevitable mistakes everyone makes are great opportunities for learning better strategies, not a frightening chasm of despair from which there is no way out.

There is a difference between resilience and buoyancy (Martin, Walsh: 2008). In a study where data were collected from 598 students in Years 8 and 10 at five Australian high schools, it was proposed that 'the traditional resilience concept does not address the many individuals who are faced with setbacks, challenges, and pressures that are part of the ordinary course of life'. The study goes on to classify this as 'buoyancy'. In the academic context, this is related to the ability to deal with everyday stresses and daily burdens, as distinct from chronic or debilitating anxieties. In simple terms, resilient students have to be buoyant; however, overall resilience can only be developed by building on buoyancy. If students are not allowed to develop coping strategies for a poor test result, a misunderstanding with peers or teachers, a C grade in an assignment, procrastination on an assessment and the myriad of other 'disasters' that accompany normal adolescent development at school, how can they be prepared for the next step?

In a study testing the intrinsic benefit of setting poorly structured or non- scaffolded problems to groups of students (Kapur:2008), it was found that short-term failure and adversity promoted better learning, problem solving and adaptability in the long term. If we keep 'everyone smiling' and set few challenges that may disturb the comfort level and equanimity of our students, how will we set them up for success in subsequent endeavours? In answering parent questions about resilience, Brooks and Goldstein, 2005, noted:

> We have found that many parents confuse empathy with giving in to their children or not holding them accountable for their actions … We should strive to inoculate them for the challenges they will face and we can accomplish this by nurturing a resilient mind-set.

In inquiry-based, constructivist or problem-based Science teaching, learning and assessment at Somerville House, we make every effort to endow students with the capacity to become resilient and learn from past experiences in a positive and non-threatening manner.

Generally there is a perception, especially in some Junior and Middle School Science contexts, that educators should refrain from criticising students or giving low grades (sometimes even a respectable 'B' causes consternation), make students proud and confident by praising often, protect them from difficulties and provide enjoyable student-chosen activities so lessons are 'fun' (Dinham: 2010). This, if used without careful thought, is really 'helidozing' the learning topography and can easily lead to reducing curriculum rigour and setting students up for intense disappointment as the educational journey progresses.

In an article on BBC News (5 Feb 2012), Headmistress of Wimbledon High School in London, Heather Hanbury, indicated to reporter Judith Burns her reasons for instigating a 'failure week' at her school:

> The emphasis will be discussions on the merits of failure and on the negative side of trying too hard not to fail. ….the girls need to learn how to fail well - and how to get over it and cope with it, she said. Fear of failing can be really crippling and stop the girls doing things they really want to do. The pupils are hugely successful but can sometimes overreact to failure even though it can sometimes be enormously beneficial to them. We want them to be brave - to have courage in the classroom, she added.

I am not promoting risk-taking, challenge and the possibility of failure in the same mode as New York journalist Leonore Skenazy. In 2008, she wrote about letting her nine-year old son ride the subway alone in New York. She was heartily vilified for this monstrous neglect of her son's welfare; however, she justified the exercise by arguing that it was well-structured and designed to embolden her offspring, giving him a feeling of earned independence and facilitating his self–reliance. She did not provide a tutor for him to hold his hand every step of the way. It is not unusual for some students to have up to five tutors to assist them to be worry-free! No wonder the Year 11 and 12 Science subjects have had all but mandated assignment tasks removed from their suites of assessment.

This is the challenge for us as a school community. Let students be students. Let academic staff do the job for which we have been trained. Trust us to facilitate the best possible outcome for our students. Let us engage with, and support each other, as we promote deep, life-long and resilient learning ability which will allow our graduates to be

successful in a very changeable and challenging world. Let us allow students to take considered risks for the highest good - and keep helicopters and bulldozers where they are most suited.

Brooks, R & Goldstein, S 2005, 'Questions and answers about resilience', *Education Horizons*, vol. 8, no 6, pp. 20-21, viewed 27 March 2012, in A+ Education database.

Burns, Judith, 2012 '"Failure week" at a top girls' school to build resilience', BBC News, viewed 5 April 2012, http://www.bbc.co.uk/news/education-16879336.

Dinham, S 2010, 'Self-esteem: Caution – do not over-inflate', *Teacher*, August, pp. 6-11, viewed 27 March 2012, in Ebscohost (EJS) database.

Kapur, M 2008, 'Productive Failure, *Cognition and Instruction'*, Cognition and Instruction, vol. 26, no. 3, pp. 379-424, viewed 27 March 2012, in Taylor and Francis online database.

Martin, AJ & Marsh, HW 2008, 'Academic buoyancy: Towards an understanding of students' everyday academic resilience', *Journal of School Psychology*, vol. 46, pp. 53–83, viewed 27 March 2012, in A+ Education database.

Martin, AJ & Marsh, HW 2006, 'Academic resilience and its psychological and educational Correlates: a construct validity approach', *Psychology in the Schools*, vol. 43, no.3, pp. 267- 81, viewed 27 March 2012, in A+ Education database.

Skenazy, L. (2008). Why I let my 9-year old ride the subway alone. (1April.) New York Sun, viewed 1 April, 2012, http:// www.nysun.com/news/why-i-letmy- 9-year-old-ride-subway-.