Background

I graduated from high school in 2010. Since then I have completed a Bachelor of Medical Imaging Science at the Queensland University of Technology

I am writing because I do not support the current assessment methods in Chemistry, Physics and Maths in Queensland High Schools. As a high school student, I experienced a maths and science curriculum in which my grades were assessed in a numerical fashion rather than predefined standards. However, as the older sibling of a student who experienced the new maths and science curriculum (in which students grades are assessed against defined standards) I have been able to make a comparison between the two methods. It is my belief that the grading system that I experienced as a high school student was simpler to understand and transitioned better to the grading system used in my subjects at university.

The remainder of my submission is comprised of my response to the terms of reference.

Alfred Smith

12th May 2013

Response to terms of reference

(1) *The ability of assessment procedures to support valid and reliable judgements of student outcomes.*

I believe assessing against defined standards rather than numerical grades is not a valid indicator of student achievements and knowledge in Maths, Chemistry or Physics. This is because the use of individual assessment criteria on each question in an exam are too complex for students to properly focus on a question. This over complication of questions leads to students worrying more about 'how' they answer a question rather the content of their answers themselves.

(2) *How well I you understood how your grades were assessed (individual assessment tasks and/or overall achievement in the subject).*

I had a good understanding of how my grades on assessment pieces were assigned. For example, exam questions would often be worded to include specific, simply understood criteria. Knowing how many marks a questions was worth would allow me to easily work out how many marks each part of the question was worth and divide my focus accordingly. This was possible without the need for individual marking criteria for each question, which appear to confuse students with the over complication of something which should be straight forward and easy enough to understand that it can be written inclusively within the question.

I believe the type of assessment used in high school Chemistry, Physics and Maths when I was a student prepared me well for assessment in my University course. In contrast, the type of assessment **currently** used in Queensland high school maths and science courses , such as maths assignments and science EEI's, is different to that used in my University course. The criteria based assessment using a match to a written description of a standard to assign a grade is different from that used in my University course.

Types of assessment used in my University course were written exams , multiple choice quizzes (including computer-based quizzes), lab reports and literature reviews.
These were generally assessed by using marks and percentages, rather than matching work to defined standards.

Overall I believe high school maths and science assessment should more closely match that used in University maths and science courses.

In general, I think assessment in high school Chemistry, Physics and Maths does not produce a fair and accurate judgement of a student's efforts. The over complication of marking criteria for exam questions or EEIs does not aid students in learning the fundamental principles of science or mathematics. As well as this, it is not an accurate representation of sort of assessment used by university maths and science courses.