SMC&PA Submission 10
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From: Rob Paterson [redacted]
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To: Education and Innovation Committee
Subject: Assessment techniques in Senior Science and Mathematics subjects

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Good afternoon,

With your permission I would like to put forward my views and concerns regarding assessment practices in Senior Mathematics A, B and C that have come about as a result of the current Senior Mathematics syllabus documents.

Firstly let me acknowledge that I am happy with the majority of the content descriptors and suggested learning experiences from the Mathematics A, B and C syllabus documents. I am, however, concerned about the use of criteria-based assessment in Mathematics as well as the perceived time requirements for both supervised and non-supervised assessment items.

I have been privileged to teach Mathematics to students in Years 8 to 12 for the past 20 years. During this time I have seen significant changes in the content, criteria and assessment methods utilised in Senior Mathematics courses.

I have always been a strong supporter of non-supervised test conditions, such as assignments, for use in assessing student performance. I firmly believe that these opportunities provide valuable learning experiences for all students and that these types of experiences should continue provided that they are open ended, are able to be equally administered and assessed, and provide students with the opportunity to address the criteria through individualised responses.

One of my concern arises from the use of criteria in the awarding of standards on supervised tests. Let me put this simplistic but relevant example to you. In theory, it is possible for two schools to have identical tests in terms of the questions being asked. That is, as an example, a Mathematics C test that has twelve identical questions being asked. However, each school could assign different dot-points within each of the three criteria to be assessed and as a result, two students could have identical responses and receive different standards of achievement in each of the three criteria.

My question is, “How is this equitable?”. I find it interesting, yet important, that the QSA values equity in education, but find it difficult to understand how it hopes to achieve this under our current system. Might I also add that I have been a member of many Senior Mathematics panels over the past 20 years and note two significant concerns that I have. The first is the dramatic lowering of standards over this period of time and the second is the vast difference in standards that have occurred over time within districts and from district to district in the same Senior Mathematics subject.

Furthermore, the expectations, warranted or otherwise, placed on students by the QSA when completing non-supervised test assessment items is completely unrealistic and places undue stress on students. There are no guidelines regarding word length in the syllabus documents regarding this types of assessment items. Added to this is the vast difference in the quality of what schools throughout the state expect from students. Again, let us suppose that two schools gave students the same assignment task, the expectations in terms of depth of coverage and presentation are vastly different. Some schools are happy with students putting together a 3-4 page handwritten report with little research or justifications of finding, while other schools expect students to word-process their work (including equation editors, Microsoft Excel and the like) and provide references that support their findings/research. The worrying thing that arises is that these same assessment pieces will receive the same results at the School level and are seldom critiqued or challenged during the panel process of moderation. Where is the equity?

I firmly believe that these issues must be addressed to ensure that there is an equitable process in place for all students.

With the greatest respect,

Rob Paterson
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