Education and Innovation Committee

SMC&PA Submission 114 Received: 9 May 2013

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To: Education and Innovation Committee

Subject: Education Enquiry

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To: Parliamentary Inquiry into Assessment Methods for Senior Maths, Chemistry & Physics

Dear Committee Members,

Having employed quite a number of school leavers over many years I have often been frustrated by their lack of understanding of mathematics.

It has been brought to my attention that the assessment methods being used are not helping the situation.

I believe that the Queensland Studies Authority (QSA) methods for assessing Senior Mathematics (Maths A, B & C), Chemistry and Physics are invalid and unreliable.

The QSA's assessment methods are invalid for three reasons

- a. Assignments <u>fail to assess the actual student's work</u> by mandating assignments, which can be done with help from tutors and parents.
- b. The QSA's criteria paragraphs measure <u>subjective and irrelevant</u> things such as whether mathematics questions are "routine or non-routine".
- c. The QSA's replacement with numerical marking with A-E letter grades for each question or assignment task is unreliable. Letters cannot be 'added up' in any reliable way to arrive at a final overall letter grade for a subject.

The QSA system is unfair and time-consuming for teachers and parents.

Yet Queensland is generally behind the other States in maths and science achievement.

Please adopt the following recommendations (except 5.) by January 2014 –

- 1. Numerical marks should be used for all assessment out of 100% and our marks and percentages shown on assessment tasks and School Reports.
- 2. Assignments in maths should be eliminated and Physics and Chemistry assignments should be
 - a. optional assessment for schools teaching these subjects;
 - b. capped at 600 words;
 - c. preferably supervised in class;
 - d. counted towards a maximum of 10% of senior assessment for the subject.
- 3. Syllabuses should be re-written to limit calculator use and irrelevant assessment criteria, so students are properly assessed on the basics in these subjects.

- 4. Syllabuses should be re-written to place emphasis on repetition and rote learning of times tables and other basic processes from Prep-Year 10. This would increase student confidence, ability and participation in these subjects in Years 11 and 12.
- 5. External exams must be introduced in senior maths and science subjects, to be sat in the final semester of Year 12, commencing in 2015.

Yours sincerely,

Jim Busuttin

