SMC&PA Submission 85
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Submission to the Education and Innovation Committee Inquiry into Assessment Methods for Senior Mathematics, Chemistry and Physics

The Queensland Association of Mathematics Teachers (QAMT) – Cairns Branch welcomes the opportunity to provide a submission to the Education and Innovation Committee Inquiry into Assessment Methods for Senior Mathematics, Chemistry and Physics. The QAMT Cairns branch represents a group of approximately 150 Mathematics teachers across about 20 high schools in the State, Catholic and Independent sectors, in and around the city of Cairns and surrounding provincial towns. (North to Mossman, west to the Atherton Tablelands townships and south to Tully) A group of about 15 Heads of Department – Mathematics/Subject Coordinator, meet once a term to discuss a multitude of issues in relation to Mathematics Curriculum and Pedagogy as well plan and co-ordinate a Professional Development Program for our mathematics teachers.

As a group, we are fully supportive of school based assessment and the practices currently used in secondary schools in Queensland. We also support the Queensland Core Skills test as one measure towards a student's Overall Position. We do not support public examinations in any Mathematics subject across the range of Year 12 offerings. We believe that we, as teachers, are best placed to know and understand what a student can and cannot do and can fairly and professionally assess their work. We do not believe that there are major concerns from our teachers and their students in regard to the current assessment techniques used for Mathematics. We realize there are sometimes individual problems which need to be worked through at the local school level.

Personally, as a Moderation Panel Chair for Mathematics B, I don't mind alternative assessments in mathematics. However in this role, I, and others in similar positions, see that some schools have great difficulty in finding the "right balance" in designing a quality piece of assessment. This is due to the fact that to satisfy the written criteria in our senior mathematics subjects, we must give opportunities for students to provide alternative solutions, present assumptions and outline their effects as well as develop alternative models to solve problems. Hence, comparability and moderation between schools can, at times, be difficult. This will always be a challenging issue as we, as teachers, write all our own assessment pieces. Another consideration in the designing of an assessment piece is the fact that the syllabus of a particular subject, can be and usually is interpreted differently by different people. This impacts, not only on the assessment, but more so, on the learning experiences and pedagogy of our students.

Also, as a Physics teacher, I believe that generally, the Extended Experimental Investigations (EEI) and Extended Research Tasks (ERT) in Physics (and Chemistry) require students to commit an excessive amount of time and effort, in comparison to other assessment items in a variety of other senior subjects across Year 11 and 12. Even though we set a word limit on the assessment piece, it is often problematic for students to satisfy all of the "A level" criteria within the given word limit. It is very difficult to write the background to your research topic and to do in-depth analysis within a short word limit. Hence, students continually strive for the elusive "A" rating for a particular task, often at the detriment of other subjects as well as put their own health at risk as pressures of their work, study and sporting commitments become "out of balance". From my experience, I also believe that students at a high school level, often do not necessarily have the required skills to provide the in-depth synthesis and evaluation of a realistic Research Task or Experimental Investigation that is needed to be awarded an A rating for their assessment task response.

Please contact me on (07) [redacted] or via email [redacted] if you require further clarification.

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