

Education and Innovation Committee

From: Lea McCulloch [REDACTED]
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10th May, 2013

To: The Education and Innovation Committee,

I am the mother of a Year 12 student of 2012 who attended a School in Brisbane.

My child studied Maths B, Physics and Chemistry and initially was very excited; but became very disillusioned with the content and assessment methods very quickly.

The following points especially relate to the current Inquiry into Senior Mathematics, Physics and Chemistry Assessments.

The problem

For the reasons below I believe the assessment methods for the subjects were **invalid and unreliable** and **discouraged student participation** and **stressed teachers** of these subjects. I would certainly not be recommending that other students take these subjects with assessment the way it is.

- **Marking:** My son and I could not see proper marks or the percentage achieved in these subjects on the tests, assignments or report card. The way that A-E grades are “added” to give overall scores is not clear. The letters are awarded for English writing skills which is invalid for these subjects and unhelpful.
- **The Extended Research Assignments** are stressful and at university level. The time these assignments take will also stop students from doing their other homework. Whilst they are instructive there is too much emphasis on just the content of the assignment only.
- It's not right for students' grades to be based on assignments as they can be (and allegedly are) done by tutors or someone else. Senior assessment and university entrance is competitive, so the grading ought to be fair and competitive for all students, not preferential for those good at Assignment writing.
- Kids are spending all their time sitting at the computer doing assignments. They don't seem to be learning much - just getting the assignments done. This is not teaching – this is just ‘connecting the dots’. There is too much emphasis on self-directed learning and they are teenagers and generally incapable of self- directed anything. Also sitting at the computer for so long is not

healthy, especially for young people and there is always the temptation to be doing 'other work' on the computer if left unsupervised.

- **Mathematics, Chemistry and Physics are based on equations and can never be properly taught or fully assessed through writing assignments which is better suited to other subjects like English or History.**
- **Calculators** are overused. I wanted my child to be able to do basic Maths without having to use a calculator but he still struggles with the basics even though he is at University.
- The **teachers** seemed unnecessarily stressed and short of time. Their paperwork demands are ever-increasing and the reports they are required to provide are confusing, rote and generally unhelpful to parents. Our schools would be healthier if education was streamlined and teachers had more time to teach and prepare lessons.
- The whole education process currently seems nebulous and subjective. If schools used the **same Senior Maths exam** across the state, then this would provide a benchmark for employers and ensure consistency and fairness.
- Overuse of calculators and failure to teach by rote Times Tables and other basic processes (such as double-digit multiplication and long division) is failing Queensland students. Many are now reaching Year 10 without mastering these basics. The resulting very poor Maths standards may explain student's low participation in these subjects in Years 11 and 12.

The solutions sought

I do not want politicians to put off fixing these problems for students currently enrolled in Year 11.

I urge the government to make it a priority to fix the following problems by January 2014, so students are no longer disadvantaged in Year 12.

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.**
3. **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. **only counted towards a maximum of 10% of senior assessment for the subject not the sole marker.**
4. Syllabuses should be re-written to limit calculator use, so students are properly assessed on the basics in these subjects.

5. 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.
6. 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,
Leanne McCulloch