## **Education and Innovation Committee**

SMC&PA Submission 21 Received: 12 April 2013

From: Sent:

Friday, 12 April 2013 3:40 PM

To:

**Education and Innovation Committee** 

Subject: Attachments: Assessment Methods for Senior Maths, Chemistry and Physics Literacy based assessment.doc; Literacy high distinction.doc

Follow Up Flag: Flag Status:

Follow up Completed

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My sons have all finished school now (2009) but when I saw the inquiry into the assessment methods for senior maths, chemistry and physics, I felt compelled to make a comment. This issue caused so much grief to my sons as they went through high school that I wrote letters (see attached) trying to explain the impact that this type of assessment was having on them and other students.

Although my letters are about my sons and to some extent about boys in general, the <u>main issue is about assessing each subject within its own right.</u> Literacy based assessment favours students with high literacy skills and disadvantages students with lower literacy skills, whether they be male or female. You don't assess mathematical skills in English so don't assess english skills in maths etc. Yes communication is important but you can have a wonderful speaker who essentially tells you nothing or a man of few words who teaches you so much.

It is my hope that other students will not have to endure the pain and frustration that my 3 sons all went through during their high school years.

Please withhold my name and details to protect my sons.

Sincerely

16<sup>th</sup> April, 2003.

Mr Lawrence Springborg MP, Leader of Opposition, Level 6, Parliament House, Alice St, BRISBANE. 4000.

Dear Mr Springborg,

At the end of 2002, I sent a letter similar to the contents of this letter to:

- Anna Bligh MP
- Hon Peter Beattie MP
- Warren Pitt MP, Member for Mulgrave
- Director General of Education
- Assistant Director General of Education
- Education Officer Special Duty
- Peninsular District Director of Education

and just recently, I sent a copy to:

- Qld Studies Authority
- Numeracy Section, Education Queensland.

Whilst I received only four replies (and am still waiting for the above two to respond), I did not feel happy with the way the issue was walked around by those who did respond.

We're meant to be the **Smart State** – but for how much longer? We're losing a lot of smart kids due to the assessment swing of **every** subject to a literacy basis. Many kids who excel in Maths and Science are now only just passing or worse due to this new form of assessment. Our Smart State is losing these smart kids purely because they are not extremely competent in literacy. And the student with high literacy skills but perhaps only mediochre knowledge of a subject is doing very well. I have just this afternoon had interviews with my year 10 sons' teachers. His science teacher told me how my son's knowledge of science was outstanding – he is currently 2 levels above the level where most bright students achieve by the end of year 10. However the literacy level of his assignment would place him at the lower end of the mid-range students! In our not-so-smart state, my son's scientific and mathematical skills are likely to be lost! An urgent review is needed. You and I weren't assessed on our literacy skills in maths and science. We needed to know our facts. Mr Beattie needs a wake up call. I would be grateful if you would be able to address this issue, as I am surprised at how often these concerns are raised by others (teachers, parents, students, other community members, employers etc.).

My use of the word "you" refers to Anna Bligh when I sent this letter to her and is not referring to you personally.

## LETTER:

For the last few years there has been much talk in the media and in schools about "Boys in Education". Some schools have taken this issue very seriously and have set up committees to investigate the problems and to hopefully come up with some solutions. The issue is not a simple one and there are many factors which may contribute to the problems being experienced by boys in education and why they are no longer doing as well in schools, nor continuing on to tertiary education as they have done in the past.

The reason for my letter is to discuss one of the issues which is contributing to this decline, an issue which I believe is reasonably easy to rectify. I have brought this issue up on several occasions over the last 2 or 3 years and interestingly this issue was raised recently on both a television programme and on a radio programme as a major contributing factor towards the current poor performance of boys in schools.

The issue is to do with literacy. Now I would be the first to agree about the importance of literacy skills as everything we do is based in some way upon these skills, so that we may effectively communicate, read a newspaper, fill in forms, apply for jobs and be able to perform in the job to an acceptable standard and so on. Therefore I take nothing away from this very important subject. I also agree that it is intrinsically tied to all other subjects, as reading with understanding is necessary to succeed in other areas of learning.

However whilst this is all very important, it is not literacy skills which should be tested in other subjects. Literacy skills should be tested in English, even though I know English is not just about literacy. But in mathematics, it is the mathematical skills only that should be tested. In computering subjects, it is the computering skills only that should be tested. In science, it the scientific facts only that should be tested. (Thank goodness it is medical knowledge and not handwriting skills that doctors are assessed upon or we wouldn't have very many doctors!) The literacy skills needed in each of these subjects should still be taught, but should not be part of the assessment in just the same way that mathematics or scientific facts are not assessed in the English examinations.

Statistically it has been shown that boys in general are more inclined to do well in the mathematics and science courses and less well in English and the reverse is generally said of girls. Therefore the current trend of making assessment for these subjects literacy based is pulling down the marks of students (generally boys) who are otherwise very competent in the subject itself. If literacy skills are lower in general than desired, then perhaps English as a subject should be allocated more learning/class time than other subjects. Testing of other subjects should be of the subject matter itself. Ask one of these students to work out a very complicated mathematical equation, and the challenge will be matched with enthusiasm and determination until the equation is correctly solved. However, ask the same student to write a literacy based assignment about the same equation and suddenly the enthusiasm diminishes and the end result gets him a much lower mark. I have witnessed this first hand.

As the mother of three sons, I can see this pattern occurring all too clearly with them. All three of my sons have received Distinctions (and even 2 High Distinctions) in the Mathematics, Science and Computer Studies competitions which are held Australia wide each year by the University of New South Wales. In primary school, my sons have all done very well and received high marks in each of these three subjects whilst only receiving a "satisfactory' mark for English matched with a Participation award for the English competition. (Notice how the school and university test results match each other.) However as the assessment of these subjects has changed as my sons have progressed through high school (a large percentage of the assessment items required for each of these subjects is now literacy based), so have their marks in their favourite subjects declined and yet interestingly they are still achieving the same high awards in the competitions where the testing is still only subject based. To use an example to show the affect of this literacy based assessment, all year 9 students at my sons' school sat for the Science Competition examination held by the University of New South Wales. When the results were sent back to the school, only three students had received a "Distinction" - they were all boys and my son was one of them. The examination was subject based. However the school Science award, granted on the basis of the current literary based assessment and not including the results of the competition was awarded to a girl!

And why has one of my sons received a 'VHA' in year 10 for computer studies and yet dropped not one but two levels to just a 'Sound' for the same subject in year 11. He still enjoys the subject immensely and works hard at it to achieve. So why such a big drop? I might have understood a drop of one level to account for the greater difficulty in the subject and the increase in the year 11 workload. But two levels? When I compared the type of assessment from year 10 to year 11, there was a vast difference. His year 10 assessment involved items such a Win Logo, Web page creations, Powerpoints, Microsoft Access etc. These are all subject based assessments. He received a VHS and the comments on his report read:

"...(Child's Name)... shows an excellent understanding of theoretical concepts and shows a very high application of his knowledge to problem solving. He also displays a very high level of understanding of computer operations and systems. All of his assignment work was well refined. His work on computer programming was particularly well done. ...(Child's Name)... is always well mannered and cooperative which has made him a pleasure to teach. His ability to work independently on problems and reach his own unique solutions is an asset to him."

However, his first major piece of assessment in year 11 was a written assignment on "The Social and Ethical Issues of Viruses", a heavily literacy based assignment. Sure this may well be considered an important aspect of the course content (this is a different issue again), however perhaps a basic question/answer style type of assessment would have been adequate to assess whether the students had grasped the concept. In my son's interim report for this subject, he only obtained a 'Sound' although he received top marks for each of the sub-sections in the areas of Classroom Behaviour, Approach to Classwork and Completion of tasks/Assignments/Homework. The academic comment in relation to the abovementioned assignment read:

"...(Child's Name)... has made a good start to the year and has produced work of a satisfactory standard. I think he may have underestimated the standard required in this subject, as I don't believe his current achievement reflects his full potential. I am sure that with future work he will do better."

My son usually receives a 'Sound' for English. I guess it shows he is consistent considering that this was a literacy based assignment. Therefore, to draw a simple conclusion, it can be seen that to test a subject on the subject matter itself versus testing a subject via literacy skills is going to end up with two entirely different results. Which is correct? Well I ask you - what subject are you assessing?

It is clearly apparent to me that the educational assessment guidelines for each subject are in dire urgency of a review. A student's marks for each subject should reflect their subject knowledge. The current assessment guidelines tell me that it is a clear case of discrimination against any student who does not have strength in literacy skills. Why are you not equally discriminating against the student who is poor in mathematics? Why are there not mathematical equations and scientific facts incorporated into the English examinations? There should not be discrimination of any kind in education, not for girls nor for boys, not for students with high/low literacy skills nor for those who are/aren't mathematically minded. As I stated previously, if there are concerns about the overall literacy skills of students, then increase the English subject time so that it is allocated a greater proportion of the student's leaning time than other subjects. But do not discriminate one child in favour of another or one subject in favour of another as you currently do. The student who struggles with English not only receives a low mark in English but also receives a lower mark than otherwise would have been received in each and every other subject because of this assessment structure. Does a weakness in mathematics affect each other subject like this? Of course not, as you only assess mathematics in mathematics. No wonder my son (and so many other students) has become so despondent and is losing his willingness to try anymore as he throws up his arms and says, "What's the use Mum?" He feels that he is being kicked in the teeth at every turn – he is 'weak' (an acceptable 'Sound' standard) at one subject, but that is ruining his chances of achieving good marks in all of his other strong subjects. (When I see my son like this, so down and disillusioned, I worry about the tragic high rate of male youth suicide. He used to eat 7 vitabrits and toast for breakfast – now he's lucky to just get something down and keep it down!)

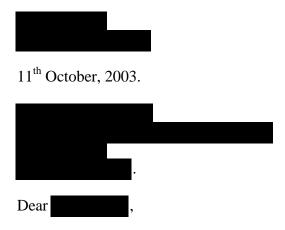
A student's report should truly and accurately reflect their strengths and weaknesses so that they may have a better chance of securing a job in a field which suits them most, in a job where they find satisfaction and are more likely to perform to their best ability and be an asset to the team, rather than finding dissatisfaction and ending up at the end of the dole queue.

You have been penalizing those students who do not show strength in English/Literacy Skills for some time now and the results are showing in the reduced percentage of males attending tertiary education. This imbalance is ruining the future potential of many students. It is **your duty of care** to return a balance for our future citizens and leaders of our 'Smart State' and to oversee a review of each subject's assessment guidelines so that all

students are able to compete equitable. This blatant discrimination needs to be addressed with urgency as **discrimination is against the law.** 

I look forward to your prompt and positive response.

Yours faithfully,



I am writing to you once again about your discriminatory style of assessment. In response to your return letter (17<sup>th</sup> Sept) to me, please tell me where I indicated that performance should be varied for boys and girls. I stated that your method of assessment is discriminating against one style of learning and favouring another. I also indicated that literacy is very important as our means of communication in all areas of learning and life.

English covers many different genres and the students are assessed on all of them. I accept that relevant literacy skills and styles need to be taught in every subject but what I don't accept is that it has such a heavy weighting in each subject. Any employer can look at a student's assessment report and see in an instance what level of literacy the student can perform at. The report shows the mark beside ENGLISH. The employer therefore basically knows what level of ability he can expect from the student for any written communication. But with your discriminatory style of assessment, what the employer cannot necessarily see is an accurate level of ability in **all** other subjects, because of your heavy weighting of literacy in each subject.

My son has always achieved well at the maths and science subjects, whilst in English has been mid-range as a sound. However, with the heavy literacy component in the assessment of all subjects, his marks in all subjects are now consistent with his English – a sound! And yet his knowledge is still excellent. Under your system, the only students able to achieve a VHA in <u>any</u> subject, are those who excel in English!! (A student's level in English is indicative of their ability in literacy.)

All the chemistry students at my son's school, along with most other schools throughout Australia, sat the Australian National Chemistry Quiz designed and tested by the Royal Australian Chemical Institute. My son was awarded not a credit nor a distinction, but a

HIGH DISTINCTION which places him in the TOP 1% of all who entered. Using your assessment system, he is just a SOUND and will continue to be!!!!!! Your assessment system ensures that his true skill will never be recognised as even with his knowledge of the subject, his literacy skills are only at a level of a sound and therefore that is the level at which his assignments must be marked. His chemistry teacher even took my son aside after his high distinction presentation and quietly asked him what mark he receives for English! She just nodded her head in a resigned response.

It is not just me, my sons and other students distressed by this situation. Many teachers agree about the inequity of the system. You have all but destroyed my son's chance of the career choice he desired. You HAVE destroyed his self esteem, his desire to try anymore. He is at burn-out point! I am struggling to convince him to continue trying when I fully understand his desire to throw it all in. Another teacher worriedly asked that I watch my son as he feared what actions he may take.

You are discriminating against my son and have failed in your duty of care of him. Please respond immediately to me and explain your justification of this situation, but don't bother with just another politician-type answer.

Yours truly,