SMC&PA Submission 95
Received: 9 May 2013

I have been a Teacher in Qld schools for ten years and in the last few years I have become extremely concerned with the changes in assessment practices for Senior Science. I will write my concerns under the following three headings.

1. **Ensuring assessment processes are supported by teachers**

- The use of ERT's and EEI's dramatically affect the amount of theory students can learn in their two years of study. Students become *consumed* with learning about the topic needed for the assignment *only* and all other learning for that term or semester tends to fall by the wayside. Although all efforts are made by the teacher to teach all subject matter specified in the work program for the semester, the amount of this subject matter that is actually learnt and retained by students is not like it used to be. Students are just worrying about completing their assessment and not appreciating learning the subject. Students are not leaving Year 12 with the same level of confidence in the subject due to the time that has been spent on assessment instead of *learning.*
- Students spend enormous amounts of time answering one or two proposed statements in ERT's and for EEI's, the time spent *perfecting* experiments and results is not really balanced by the amount of knowledge learnt. Don't get me wrong – I firmly believe in experimenting to enhance and encourage learning and students' discovering their own learning through experiments, but with EEI's the balance is not there. Discussing one or two experiments in depth, up to 3000 words is very daunting and more appropriate to students who have a more thorough understanding of underlying principles – more suited towards university students. I am yet to come across *any* teachers who support this model of assessment.
- I have recently returned to work after taking Maternity Leave and I am concerned about my workload after being told I will be teaching Year 11 Chemistry. The time spent marking both EEI's and ERT's is huge and drafts also need to be marked. This impacts on home-life as all this marking occurs after school or on weekends. A colleague of mine was chatting to me casually about the Year 11 Physics EEI drafts that he had to mark and he was explaining that they were taking 2 hours each to mark! For the 20 students in his class, he spent around 40 hours marking these *drafts* which he needed to return to his students following the upcoming weekend so they could respond to feedback and then hand in their final copy in two weeks' time.

2. **Student participation levels**

In Chemistry, students get very overwhelmed with this type of assessment (ERT's and EEI's) so much so that they speak extremely negatively about the assessment and even the subject. The amount of time that is needed to get their head around the task sheet and all the steps needed to be successful is very daunting especially when these students have just begun studying the subject in Year 11. Less time in class is available for problem solving and complex tasks so students are left to try to work out what depth of knowledge and understanding is needed as evidence in their assignment to earn the mark they want. The number of students studying senior science has decreased which is a real shame. The English component needed for this subject is not really reflective of what they traditionally need to achieve well in the subject. The assessment is very hard and even harder than students may come across at university……..

3. **The ability of assessment processes to support valid and reliable judgments of student outcomes.**

   The assessment processes in Chemistry do not necessarily allow the best Chemistry students to shine through. Students who are good science students and understand the subject do not necessarily achieve the best grade due to the huge written component in the assessment. Student's English skills are called upon and a certain amount of presumed knowledge in terms of essay writing skills and paragraph structure and report writing is assumed. There is not enough time, to be teaching both the theory and giving time to experimenting to be teaching essay skills also. The assessment should be subject specific and be set in a way that demonstrates student learning – not essay writing skills. Again this assessment does not allow students scientific knowledge and understanding to be the primary focus. The assessment should be designed with knowing where the subject is headed and not trying to make it a written subject like History and English.