

I am the Science HOD at Beenleigh State High School and have followed this issue with much interest. I attended one of the public meeting and have followed the detailed debate on the Education Department Physics Discussion List. Prior to my career in teaching I worked as a Civil Engineer for 11 years. I do not think that radical changes to the current Queensland assessment system are needed for the following reasons:

- Extended Experimental Investigations are excellent assessment items which students enjoy. While there are some critics of this technique, most teachers I know would hate to see them go. These tasks have provided students with a very engaging way to explore the scientific process and I have worked with students who have completed rigorous projects based around bottle rockets, solid fuelled rockets, trebuchets and front-flips. One of the major concerns raised by teachers is the undue workload required by EEs, however this could be easily addressed at the school level by stricter enforcing of word limits. The practical write-ups which were included in the previous syllabus were short, inconsequential items which provided students a very limited view of the scientific process.

- Critics of the current system argue that we should go back to the narrow exam based assessment used under previous syllabi. They argue that mathematically gifted students, and boys in particular are underperforming under the current regime as they cannot cope with the literacy demands in physics and chemistry. I do not agree with this argument, as scientific literacy and communication is more important than ever. When I worked in Engineering one of the most important skills we looked for in graduates was being able to articulate complex technical information in written form. The graduate who was mathematically brilliant, but a poor communicator was not highly sought after in the industry. The entire field of scientific research is built around the writing of peer-reviewed scientific papers and technical writing is a skill that can and should be explicitly taught at the high school level.

- On the issue of marks I have some sympathy with the arguments put forward by critics of the current system. However most schools are now at the stage where they have established assessment items which work well. Rather than relieving teacher workloads, a return to marks would require these items to be re-written. A positive outcome of this debate has been the explicit statements from the QSA that marks are allowed under the current system, on the condition that they still adhere to criteria based standards.

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