To whom it may concern,

As a recent, past student who has graduated and gone through all of my schooling in Queensland, I strongly believe that assessing against defined standards as opposed to numerical grades does not provide a valid indicator of the achievements/knowledge in maths, chemistry and physics. It seemed impractical in our final senior years to have exams based on defined standards of questions (A,B,C,D level questions) to determine whether or not we were at that level of achievement, especially in subjects that deal with knowledge and facts based on numbers/percentages etc; For example in maths, it was fair to have harder level questions, however, if that student did not answer the problem correctly with the final right answer, a student would not be able to obtain that A level question. If using marks, there are certain steps and calculations which you can obtain marks by having those steps and even if the final answer was incorrect, you are still able to receive marks for working out.

On top of this marking system, it was not very well explained to students at all. There were many times in years 11 and 12 where I did not know what the correct answer was in order to receive "full marks". The teachers did not get the opportunity or time necessarily to go through the new marking system with students, therefore we were left trying to figure out what it all meant. Specific to Maths, there would be ticks and dots on the answer sheets we got to look at but I did not know what that meant. We also had no way to compare ourselves to others as there were no clear cut marks. The ticks and dots were used to show the things we got correct and where we didn't have working but did not tell us how we got correct answers to the question. The teacher would just tell us our overall grade for that exam which I found frustrating at times as I did not know exactly how I received that mark. There was no way to know how to further improve and in what way. I feel that the system was poorly constructed as the teachers did not explain it to us well either or the ways we could improve.

I do feel that the Queensland system worked for me in that there was assessment all year round that counted towards our final OP, instead of a massive block of exams at the end of the year like they do in other states. This allowed me to prioritise my workload and know the assessment for each term. The timeframe for completing EEI tasks and similar projects in Chemistry and Physics was also adequate in my opinion, however sometimes there was not enough clear direction from teachers in how to approach an EEI. In grade 11, we had our first extended investigation which many students did not know how to begin/what the standard of level was expected for these EEI's so this could have been explained better. The word limit was achievable, however I found that often in the Discussion aspect of the EEI, it was always a struggle to remain within the word limit. I know that many of my friends who were high achievers found it hard to stay within the limit, as did I myself, as extra information that had been researched and wanting to be included in the discussion often was taken out due to the word limit.

The workload of senior Maths, Chemistry and Physics was greater compared to the other subjects I studied only because a deeper understanding of these concepts for these subjects was required. Numerous topics were covered within physics and maths within a term, this therefore needed more time to focus and understand the content being taught. There was

usually one major piece of assessment each term for each of these subjects (except maths that had both a knowledge paper and problem solving paper) which I found to be an adequate, manageable workload.

To improve the Physics, Chemistry and Maths assessment, I feel that the old system of grading should be employed as it gives a much greater indication to students about their ability/understanding the level they are at. When dealing in sciences and mathematics, giving students numerical marks is more beneficial compared to questions that are created using a lettered system. It allows them to see what they have done well and specific aspects of the question that they did/did not answer correctly. We have been taught our whole schooling lives and graded using a specific system (graded marks using numbers). It does not make sense to me to employ a completely different grading system in our most important years of high school (which will affect our future) that students, ourselves do not understand, leading to even less of a chance to improve.

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