CONASTA 2014

Firstly a big thankyou to the Teachers Registration Board for sponsoring me to attend CONASTA this year, an opportunity I would not have otherwise had. It was a very enjoyable three days where I had the opportunity to be exposed to eminent scientists, university professors, curriculum consultants, teachers from across the country, trade displayers and fellow science teachers.

The highlight of the conference was the key note speakers where I had the opportunity to listen to the work of some of Australia's top scientists, both male and female, who are involved in cutting edge science. Their addresses were fascinating and their enthusiasm engaging. It has given me an insight into the world of scientists and what their work entails. They discussed the type of research they are involved in, how they work collaboratively across the disciplines of science to find solutions to contemporary issues and use understandings and skills from many different disciplines to connect ideas. This insight will be invaluable when integrating science as a human endeavour into science lessons. I now have a greater understanding of the essence of science and real life examples I can discuss with my students.

I attended a variety of workshops all related to primary school science including the following:

- What have we learned from classroom video? See below
- Bringing STEM Careers to Life: This is a resource for Year 7’s developed by RiAus and DECD showcasing STEM careers and includes footage and classroom activities. I was impressed with the way ethical issues, creative and critical thinking are a strong focus of the units. This has provided me with a way to expose students to STEM careers in a meaningful and engaging way.
- Science and Technologies in the Australian Curriculum: making the connections for primary students. I was interested in this workshop to gain a deeper understanding of the connections between Science and Technologies in the AC. The benefit of this workshop was in gaining an understanding of the inquiry processes for both areas and how they compare and how they can be integrated.
- Spicing up Year 7 Science: A resource developed by the University of Western Australia using multi media and real life situations for Year 7 students. It was interesting to see how science outcomes were used to plan units of work based around issues and connected to real life situations rather than just teaching the science.
- How we can make student's misconceptions work for us in teaching science: a new resource available soon on the DECD Leadership Resources website based on the AC and TfEL exploring the common misconceptions students have at particular ages, how to use diagnostic assessments to find out students’ misconceptions and experiences to give students to help them explore changing these misconceptions. This was about providing targeted learning programmes.
- Using rubrics for assessment, e-science: free, engaging and curriculum ready resources for science education. In this session we discussed rubrics used for teacher assessment, peer assessment and student assessment. There was a lot of discussion about the value of rubrics in particular, how they are designed and used with valuable input from participants, some who have been involved in the development of rubrics for the AC in other states. I found this session very useful. I am looking forward to using some of the rubrics we were given and adapting others to suit my needs and to designing some of my own.

I have gained a wealth of information, ideas and resources from these workshops and been involved in valuable and rigorous discussions with others from all across Australia. This has provided different perspectives from different education systems and people working in different positions.

The workshops I attended were across a variety of topics and while all can be applied to Science they also had many applications to all areas of teaching which means the knowledge and skills I attained from these workshops can be shared with all teachers I work with. This includes using video to support teacher professional learning through videoeing of teachers to improve performance which supports the Australian Professional Standards for Teachers. We were shown a model that has been trialled in a school and given pointers in how videoeing can be done in a supportive manner to generate productive professional learning conversations. I can use the rich resources, knowledge and information in my position as a specialist Science teacher and also as support for teachers at my site who teach part of the Science curriculum.
Another aspect of the conference was the ability to network with other teachers, especially as a specialist teacher in a primary school where the opportunities to connect with other Science teachers are limited. In the workshop on rubrics we were able to discuss the difficulties in assessing a large number of students (usually the whole school) and heard how teachers in other schools managed this and the type of rubrics they use. Having the opportunity to discuss issues unique to specialist teachers was invaluable. I was able to make connections with another specialist teacher in a primary school and we intend to continue to communicate to share information from different workshops we attended and to support each other in our roles.

CONASTA also provided me with professional development which as a specialist Science teacher is often hard to find. I can also take the time to go back over the workshops during staff meeting time when teachers at my school are involved in learning that is not relevant to my needs. This is an issue for NIT providers in primary schools when you are the only specialist teacher in the school.

I am also a member of a primary science teachers PLC and I spent time at the conference with another member of the PLC. Our PLC consists of primary classroom teachers and specialist primary Science teachers from the Northern Area. We discussed the different workshops we attended and also spoke of sharing what we learnt not only with each other but with our PLC. We also discussed trying to get more primary Science specialist teachers to tend our PLC. To do this we are both intending to speak with our Australian Curriculum Facilitators to assist us in this matter. We would also like to suggest a regular date for our PLC to ensure there is commitment and to ensure sustainability. Attending the conference and being able to have contact with teachers from schools that are not close in proximity has allowed us to discuss this which would not have happened otherwise.

An important part of the conference was the exposure to the trade exhibits. This gave me the opportunity to know about all the companies and organisations that provide resources for Science teachers and schools, many which I was unaware of.

By the end of the three days my head was full but I am looking forward to reviewing what I have learnt and sharing with others. Overall it was a wonderful three days where I learnt a great deal and once again I thank the Registration Board for my sponsorship.

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