



## Professional Learning and Development Overview

<ul style="list-style-type: none"><li>• Developing a school wide constructivist learning environment focused on: student centred learning teams, engaging PBL/Inquiry, all subjects.</li><li>• Student centred learning environments</li><li>• Collaborative leadership and coaching and mentoring</li><li>• Developing engaging and relevant student inquiries linked to the NZC.</li><li>• Developing and delivering specific PLD for sustainable middle leader practice</li><li>• Developing team-based differentiated learning strategies in middle years and all NCEA levels.</li></ul>	<ul style="list-style-type: none"><li>• Developing student research: STEM/STEAM Science fair and CREST</li><li>• eLearning in science contexts enabled through digital technologies</li><li>• Qualitative and quantitative data from classroom observations, student and teacher voice</li><li>• Developing effective programs of learning for a range of different cultures and abilities.</li><li>• Developing strong collaborative teams</li></ul>
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## Professional Information

<p><b>Relevant Qualifications:</b> <b>2004:</b> PhD Curtin University (Western Australia) <b>1977:</b> MSc (Chemistry) University of Waikato <b>1975:</b> BSc (Chemistry) University of Waikato</p> <p>Research interests: My doctoral thesis was <i>'The Effect of Cooperative Group Work and Assessment on the Attitudes of Students towards Science in NZ'</i>. This was followed in 2006 by an e-Fellowship research award entitled <i>'Problem-based learning in teams'</i> targeted to several remote schools through digital technologies. Adjunct research fellow: Curtin University reviewing papers for <i>'Learning environments Research'</i>, PhD examiner</p> <p>Experience in PLD delivery, Student centred learning teams, Problem-based learning (Inquiry) in the Sciences middle and senior levels, all subjects since 2017 - current.</p> <ul style="list-style-type: none"><li>• 2017-2019: AOBA-JIS International School, Tokyo, Japan: Pedagogy specialist across all subjects and levels. 2019: Workshop facilitator "Top Schools" China: responsible for 1000+ private schools.</li><li>• 2016: Team Solutions science facilitator working with middle leaders developing capacity in: Student centred learning, differentiated team based inquiry, relevant engaging contexts, Nature of Science and capabilities, raising Māori and Pasifika achievement.</li><li>• I was a senior science curriculum specialist for the Abu Dhabi Education Council (2011-2015), and responsible for developing the Year 7-13 science curriculum, professional development for locals and western expats, pedagogy, and assessment for learning in student centred learning environments. I worked with a team of over 40 advisors across 350 schools.</li><li>• I was co-director of the successful PLUTO project targeting middle to lower ability students in a student centred engaging learning environment across 20 Bay of Plenty/Waikato schools.</li><li>• My problem-based learning in teams eFellowship project for teams of 3 top Y10 students from each of 8 more remote schools enabled through ICTs ran from 2006 to 2011 was highly successful</li><li>• I established a most successful science and technology (STEM) student research school and region in science fair and the prestigious RSNZ CREST scheme at national/international level.</li><li>• I mentored trainee teachers for the University of Waikato for fifteen years</li></ul>
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## Conferences: Presenter and workshops

<p><b>2019:</b> December 5 - 8<sup>th</sup>, 'Link &amp; Leap Summit-STEAM &amp; Technology Empowering Education Forum' organized by TopSchools, Guangdong, Shenzhen, China. Running workshop, <a href="http://www.bqyjie.com/news/201912/50321.html">http://www.bqyjie.com/news/201912/50321.html</a></p> <p><b>2018:</b> Speaker and workshop: <i>RAISE conference</i>, Shanghai, China, November 16-18 (Top Schools) <a href="http://www.cbbc.org/events/2018/november/raise-conference-shanghai/">http://www.cbbc.org/events/2018/november/raise-conference-shanghai/</a> Speaker: <i>Issues in Global Education</i>, Tokyo, Japan, April 28 -30 Speaker: <i>Japan Council of International Schools</i>: <a href="http://www.jcis.jp">http://www.jcis.jp</a> Tokyo Japan, April 16</p> <p><b>2016:</b> <i>ULearn</i>, Rotorua, New Zealand <b>2016:</b> <i>SciCon</i>, Wellington, New Zealand <b>2014:</b> <i>Nordic Research Symposium on Science Education (NFSUN) Inquiry-Based Science Education in</i></p>
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Technology-Rich Environments. Helsinki University, Finland (2 peer reviewed papers)  
**2012:** 7<sup>th</sup> *International Conference*; Science, Mathematics & Technology Education. Sultan Qaboos Uni, Oman  
**2012:** 9<sup>th</sup> *National Education Conference*: Higher Colleges of Technology: Al Ain Women's University, UAE.  
**2010:** *SciCon*, Nelson, New Zealand. (Keynote Speaker)  
**2008:** *ULearn*, Rotorua, New Zealand  
**2007:** *Microsoft Innovative Teachers Conference* (New Zealand representative), Seim Reip, Cambodia  
**2006:** *ULearn*, Christchurch, New Zealand  
**2001:** *Australasian Science Education Research Association*, Sydney, Australia  
**Publications (Selected examples)**  
**2006:** PROBLIT: *Problem-Based Learning in Teams*. <http://core-ed.org/assets/Uploads/Report-PROBLIT-Paul-Lowe-Dr-VInce-Ham-eFellow-2006.pdf>  
**2004:** PhD Thesis The Effect of Cooperative Group Work and Assessment on the Attitudes of Students towards Science in New Zealand: <https://espace.curtin.edu.au/handle/20.500.11937/955>  
**Awards:**  
**2010:** Prime Minister's Science Teacher Award (Inaugural winner) for innovative teaching and student success (2009 award presented 2010)  
 \* Professional Member of the Royal Society of New Zealand (MRSNZ)  
**2009:** Kudos Award winner: Science Educator/Communicator Waikato Region:  
 1. Teacher Study award, 2. RSNZ Fellowship and 3. eFellowship

## Summary of examples of practice

2019, December: Ran a highly successful workshop, <http://www.bqyjie.com/news/201912/50321.html>  
 Guangdong, Shenzhen, China (PRB)  
 2017-2019: "Over the last few years at Aoba-Japan International School Dr Paul Lowe has been instrumental in transforming the teaching and learning for the better in our secondary school. Challenged with lack of teacher collaboration and poor student engagement Dr Lowe designed and lead an intervention strategy that realised significant results in terms of teacher professional growth and student outcomes across all subject domains and year levels. Central to the strategy was the application of student centred team learning through a problem-based/inquiry approach This approach was facilitated and actively modelled in the classroom by Dr Lowe as he worked side by side with teachers and school administrators. Due to his work, our school can justifiably claim we are leaders in contemporary pedagogical practices."  
 Ken Sell: Head of School: AOBA-JIS November, 2019  
 2016: University of Auckland: Team Solutions: Central North Island: I have facilitated in a range of schools developing science HOD capability to implement a student centred learning environment in relevant and engaging contexts, building in the nature of science and capabilities, and subject specific literacy in order to raise student achievement. The development of strong relationships, coaching, modelling, and student voice is key. While the main thrust of the PLD was Māori, Pasifika achievement at level 1 and 2 NCEA, the enhanced learning environment has inspired HODs to apply these principles to junior both senior and junior classes with success.  
 2011-2015: As senior science curriculum specialist: Abu Dhabi Education Council: I formed a strong dedicated team to develop a new student centred, culturally appropriate science curriculum that engaged students through use of relevant contexts and supported this with PLD for both expatriate and local Arabic teachers, assessment, resources and textbooks, which needed to be developed. The transition from a teacher centred learning environment to the student was highly successful and with strong supporting evidence. There are close 400 schools.  
 Morrinsville College: I have extensive and successful experience in creating a school environment where student research in science and technology can be successful and rewarding. The best research and technology is student driven, but support and opportunities need to be there. Existing structures like the CREST award scheme builds through different levels to the ultimate Gold award. Other opportunities such as school, regional and national 'Realise the Dream' science and technology fairs offer rewards, monetary and overseas trips. A proven 'track record' in STEM/STEAM

## Referees

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