

Daniel Hugo graduated from UWA with a Bachelor of Science (First Class Honours), having been awarded a zoology prize for top third year student. He then directed his passion, dedication and intellect to education. In his pursuit for excellence he has always been interested, not just in science but in the core skills of literacy, critical and creative thinking and innovation. They inform everything he does. Daniel has provided 30 years of commitment and leadership to education and is still at the forefront of developing programs and strategies to make teachers more effective and to improve learning outcomes for students.

Professional knowledge and understanding

As a classroom teacher, Daniel was Coordinator of the Literacy Committee for four years to 1997. This breaks subject stereotypes of humanities teachers being leaders in literacy education. Daniel led the implementation of in-servicing all staff in the Stepping Out Project which ran for three years. All teachers engaged in up to 22 hours of professional learning (PL) directly related to the school's priority of improved Literacy. When a whole school approach to literacy was needed Daniel's work had already laid a foundation. With staff changes this needed to be revisited and updated. More recently in 2016 Daniel trained in CMS and the associated proven learning strategies. In 2017 Daniel became acting HoLA for Science. He uses the CMS initiative to provide the catalyst and framework for pedagogical change in science. He ensured that the staff who have received CMS training were confident to act as mentors to others and encouraged them to model CMS strategies and strategies from other proven pedagogies such as Visible Thinking and Stepping Out during staff meetings. Daniel initiated and gained support from science staff for a program of classroom observation focusing on pedagogical development. Research and workplace knowledge show these are proven for improving scores of a diverse range of students. Daniel has targeted individual science teachers to receive CMS training in consultation with the School's Executive. As a result, this process is becoming a cornerstone of Science's culture. In 2017 Year 12 results showed: ATAR course differentials indicated that all the courses contributed positively to students' ATAR; and all correlation coefficients were close to 0.9.

2017 Carine NAPLAN data showed it was a leading school in WA. It had the highest score above expected (0.7 of a standard deviation) in Writing amongst WA like schools. This led a principal consultant to use its live data at State Literacy Coordinators' Network Term 2 2018 meeting, supporting and upskilling literacy teachers. The CSHS Academic Performance Manager (APM) was engaged to show teachers how a small dip in data could be addressed for positive outcomes. Participants requested knowledge of the breadth and depth of the school's improvement strategies. On hearing that a male Science teacher was an integral part of literacy they were keen to learn how he had initiated and led change. The current audience is all female. They look forward to not only using the reading strategies but also effective ICT by becoming familiar with his e-homework program in Term 3 2018. This will spread literacy strategies to a state-wide audience.

CSHS has a transition network of 7 Primary Feeder Schools. The network has been set up to enable Year 6 students to successfully move to high school. Part of the work shared is literacy mapping, Years 1-12. At the Term 2 2018 meeting STEM was the focus. Daniel addressed the audience because of his dual skills in STEM and literacy. He explored writing a science investigation. Teachers were able to witness exemplary practice on the genre of science writing. The teachers found this affirming of their own STEM journeys, and reinforced their teaching of the concept of a fair test and that STEM is a pedagogy where the main focus is not solely on knowledge. When Daniel conducts PL he does not speak at the audience; he applies all the CMS strategies to involve the learners. A representative from Teach for Australia found Daniel's approach reinforced her knowledge when guiding graduates who are becoming teachers across the state.

Whilst Daniel focuses on big ideas and implements changes that affect whole systems he does not lose sight of each student in his classes. In 2017 one of Daniel's Year 7 students who is EALD, with a Middle Eastern background was dedicated to studying, but failing science tests. He asked the APM to attend a class test to have her read aloud the material, whilst the student wrote the answers. The student's score improved markedly to a near pass. He then asked the APM to arrange 1:1 tutoring lessons with a member of the science staff before school once a week. In Year 8 the student is passing science tests without tutoring. As HoLA he continually answers parent inquiries about students who struggle. He attends face to face meetings with teachers and parents; contacts the APM or collaborates with individual teachers to ensure that every student has the opportunity to develop their general capabilities.

Professional practice

The Associate Principal, Daniel and his second in charge reviewed all Year 11 and 12 assessment data, identified issues with internal moderation processes and introduced the assessment guidelines to ensure internal moderation of all school based assessment tasks is carried out in accordance with the WACE

2018 WA PREMIER'S SECONDARY TEACHER OF THE YEAR NOMINATION

Manual and that means and standard deviations for all school based assessment tasks are consistent with expectations based on historical data. All assessment data is presented for approval before marks are made available. As a result of this, Daniel was able to make a sizeable contribution to the Senior School Internal Moderation Guidelines.

Daniel used a new visual approach to inspire students when doing course counselling for upper school. He used an exceptional past student as the subject of his clip. Students reacted so well to this style of information that almost all learning areas now give this style of information. Students find it helpful and it has alleviated some of the stress of decision making by graphically seeing what each course entails. It has helped them to make informed choices about their subjects. It is one reason that in the last two years there has been a marked decline in the numbers of students swapping courses and interrupting their schooling.

He led and coordinated the planning of and strategies for addressing the global and Australian STEM initiative and to prepare CSHS to become the only STEM GATE School in WA in 2020. He provided regular reports to the staff executive, senior management and school staff. Through his leadership, a model for STEM at CSHS has been developed. Daniel enhanced the level of cooperation and collaboration between Science and the other Learning Areas. He was responsible for growing the STEM initiative across the school. He had teachers from different fields present how they were using STEM in their classes. As a result of this inclusion, teachers at CSHS voted to make STEAM one of the key priorities of the school. Having provided leadership and impetus, this committee has now been delegated to a maths teacher.

He led the introduction of ATAR Psychology, General Psychology and General Human Biology for 2018, thereby substantially increasing the breadth of Science courses available and increasing the opportunities for students to study science at a general level.

Under his leadership CSHS Science hosted a PL Day in 2017. By liaising and negotiating with the HOLAs of Churchlands SHS and Duncraig SHS Daniel produced a program for the event which met the professional needs of the staff and provided an invaluable opportunity for collaboration. Through this Daniel has promoted the sharing of ideas and successful strategies with two other GATE schools anticipating CSHS GATE in 2020.

Daniel found that Year 7 parents wanted more information on Year 7 Science but at the same time were overwhelmed by the volume of written information they received from the school. He worked with the Student Council to address this issue by making a video, starring Year 7s about: areas of study; assessments and how to access online homework. He included a feedback survey. 100% of parents found it useful. 73% found it very useful or extremely useful. In 2016 he researched and trialled digital learning platforms. He presented the results of the trial to school staff. He ran a PL session. Teachers now use the platform to improve learning outcomes across a range of learning areas. Science uses it for weekly online homework for lower school in Years 7, 8 and 10 and to improve accountability. Survey results showed that 80% of students found the instant feedback provided by the digital learning platform very helpful and 85% of students requested more homework using the digital platform to specifically target preparation for tests and exams. The platform is also used to develop revision resources for Science ATAR courses. Weekly communication is also provided to parents on homework deadlines and completion. This has allowed parents to play a more active role in promoting homework completion for their child. Survey results have shown that 83% of parents find it very useful.

Daniel is skilled in mentoring teachers who switch from other areas. In 2018 Daniel mentored and supported a female Art teacher to take a temporary position in Science. In gratitude for the support she and another new Science teacher (Phys Ed background) they held a morning tea to publicly acknowledge Daniel and Science. This teacher, a former paramedic is tutoring a FTD student in Human Biology. (Aboriginal students at CSHS are 1% of the population.) It is this female Aboriginal student's dream to work in some medical field. In Term 1 2018 her attendance was 100%. In Year 10 it had been 83%. She received 78% in her last test and has passed Semester 1. The external FTD coordinator cited this student's successful attendance example to sponsors of the FTD program from BHP. It is Daniel's inclusivity that has had a flow on effect to this success.

Under Daniel's leadership, collaboration began between Science, Design and Technology and a Lake Gwelup PS Teacher in the Reengineering Australia - Mini Remotely Operated Vehicles project. This culminated with Years 6, 8 and 10 students attending the Mini ROVs competition in 2017. Also, Daniel has lead and supported colleagues within the school to present PL. Several young Science teachers provided ICT skills for all staff. This has helped the confidence of the beginning teachers and upskilled more

2018 WA PREMIER'S SECONDARY TEACHER OF THE YEAR NOMINATION

experienced staff in the use of Connect and Making Thinking Visible. CSHS is one of the highest users of Connect in WA. Parents/carers are engaged with their children's learning through this media.

Elevate study skills are delivered to the Year 7s. Daniel followed through for this cohort after their presentations. The Science Department reinforced mind mapping and introduced visual and tactile cards for learning classifications. Year 7s were in the library before school "playing" with the cards and quizzing one another. In 2017 the mean for the biological test was 58.4%. In 2018 the mean for the same test was 62.4%. For the two former tests chemical science and physical science both cohorts, 2017 and 2018 the scores were less than 1% different.

Daniel encourages all Science teachers to run tutorials to assist students. It has become a part of Science culture. Year 12 Chemistry, Human Biology and Biology (run by Daniel) revision sessions are run once a week. Year 12 Physics tutorials are run daily. There is a development of independent learning and student responsibility. Student results have continued to make Carine one of the top public schools in WA in 2017.

This led to a spontaneous desire for Science students to follow Maths peer tutoring in Semester 1 of 2018. A Year 11 Chemistry student volunteered; took the initiative to find a Physics student and tutored 3 Year 10s. When the Year 10s sat their Semester 1 exams all 3 scored one grade higher. Now the mentoring has been formalised and as Year 10s do course counselling for subject choices for Year 11 they can be set up with peer mentors if they are striving to improve their grade.

Professional engagement

Daniel is a member of the Science Teachers Association. He has a St John Ambulance First Aid Certificate; a Recreational Skipper's Ticket and a Marine Radio Operator's Certificate of Proficiency.

Daniel is pre-emptive in upskilling himself so that he can lead others. His list of PL is extensive covering areas of ethics, accounting, diversity, Aboriginal awareness, problem solving, creativity, independent thinking, critical analysis and literacy. Most recently he has attended: the STEM Conference, Curtin University, 2017; Fourth Annual National STEM Conference, Sydney, 2017; CMS 2 Instructional Strategies for Engagement Program, 2017; Teachers' Data Analysis Workshop (ATAR), 2017 and Externally Set Task Data Analysis Workshop, 2017. In 2017 he also employed the AITSL 360* Reflection tool. He asked all staff to complete it. He sought this peer feedback to identify weakness he could address and use the strengths in his application to become HoLA. He was the successful candidate.

In 2007 – 2008 he was chosen to be on a SCASA Marine and Maritime Technology Assessment Review and Moderation Panel to assist in the development of assessment guidelines, grade related descriptors, sample assessment tasks, sample assessment outlines, guidelines and materials and sample course outlines. This was because he had developed aspects of this course in a Senior Science course to increase engagement. The course at CSHS was so popular it grew from one class to 5. This is evidence of him knowing curriculum to develop students' skills successfully. 10 years later this course is still offered in WA.

The other new staff member (from Phys Ed), under his guidance, is preparing material for sustainability for Science Week in Term 3 2018. He plans to mentor this teacher in building a community wide engagement opportunity with feeder schools to plant native vegetation. Daniel and the teacher have met with a manager from Sustainable Communities who is also a parent. An Aboriginal staff member, an English teacher was also present. She has previously organised events for Aboriginal students. This gives her a platform to join to work for landscapes that include bush tucker and to explore traditional ecological knowledge. As the school is currently building the new Science facility the new science teacher is working with the registrar and community members to replant native vegetation. This teacher has also met with Keep Australia Beautiful to make CSHS a waste wise school. As a role model in building sustainable environments Daniel and another staff member consistently ride their bikes to school. He motivates staff to interact with the wider community and affirms their ideas and projects.

Daniel encourages experienced staff too. His second in charge engaged with a tertiary institution. She and Daniel took Year 10 Academic Extension students to Murdoch University in Term 2 2018 to conduct STEM activities including a wind turbine investigation, extraction of DNA and face recognition workshop. Photos were placed on the school website and parents interacted and commented about their children's activities. These students also had an incursion. The Petroleum Club of WA visited this AE class of hers to discuss careers in oil and gas. One of the guest speakers was a 2011 CSHS alumni who works for BHP.

Daniel has been a key teacher in CSHS's transformational change to WA Secondary School of the Year 2017.

Daniel Hugo- Carine Senior High School