



Dr Trevor G Appleton FRACI CChem AM

Dr Appleton was a member of staff of the Chemistry Department of The University of Queensland, involved in both teaching and research. He was also a long-term member of the Royal Australian Chemical Institute (RACI), serving in a number of roles. At the State level, he was active in both the Chemical Education Group and the Inorganic Chemistry Group.

Trevor was the stalwart of the RACI Queensland Branch Chemical Education Group from 1975 until 2012, holding office at various times as Chairperson and Secretary. He served on many organising committees for their annual events such as the "Secondary-Tertiary Interface", Crystal Growing Competition, and the O'Donnell School Lecture Series. His contribution to chemical education at the secondary school level has steered many young students into a career in chemistry.

Trevor's major contribution to the Queensland Chemical Education Group was the introduction of the Queensland Chemical Analysis (Titration) Competition. In 1980 Trevor was instrumental in establishing the rules and procedures for Titration Competitions to be held at the secondary school level (prior to 1980 these competitions had been limited to tertiary level students). Queensland has seen this competition grow and can now proudly boast over 600 students participating annually with competitions being held at seven (7) venues throughout S.E. Queensland and at least four (4) regional venues throughout Queensland – all this under his continuing guidance.

Following on from the initial Queensland success, Trevor then contributed to the establishment of the RACI National Chemical Analysis (Titration) Competition in 1984, and until his illness he continued as the National Coordinator. Because of his firm belief that no student participating in the National Finals should be disadvantaged, every year he painstakingly measured every sample for each student who had progressed to the National Finals, and mailed these to the various state venues - each year approximately 150 teams (i.e. 2 samples for each of 450 students). This took many hours of his own time which he volunteered willingly. Trevor then collated the results from all venues and organised the dissemination of results, certificates and plaques.

In his years of Chemistry teaching since 1974 at the University of Queensland, Trevor contributed to the careers of many young chemists. His PowerPoint presentations are a valuable resource used by others in the education of young chemists. As a member of the Queensland Senior Secondary School Chemistry Syllabus Committees (1990 - 2007), under the State Authority now known as the Queensland Curriculum and Assessment Authority (QCAA), he was instrumental in setting the Chemistry Syllabus for Queensland Senior Secondary Schools. In 1998 he was also involved in initial discussions to enable the University of Queensland CHEM1020 course to be taught to Senior students in schools. This first level university course continues to be available to schools. UQ now offers an expanding number of courses in other disciplines, modelled on the way the Chemistry course was organised.

Dr Appleton passed away in 2013. He is remembered as a man who was passionate about Chemistry who generously shared his expertise with others, be they fellow researchers, teachers or students. His contributions were acknowledged nationally when he was posthumously awarded an AM (Member of the Order of Australia).

The following obituary was published in Chemistry in Australia in February 2014.

Trevor Appleton - Teacher and Mentor

Trevor George Appleton FRACI CChem (8 November 1944 - 13 June 2013) made an invaluable contribution to the profession of chemistry - through the RACI and during his career as an academic and researcher at the University of Queensland. Trevor's career at the University of Queensland spanned from 1963, when he commenced as an undergraduate, through to 2009, when he retired as a senior academic staff member, with breaks for overseas study.

Trevor's service to the RACI was at Branch and Group level and at a National level as the National Coordinator of the Titration Competition for over 30 years. This competition continues to grow throughout Australia, and will be a fitting legacy to Trevor. It is estimated that in excess of 60 000 students have participated in the competition since Trevor introduced it, first in Queensland in 1980, then nationally in 1984. In recognition of his outstanding service, the Board (RACI) unanimously awarded Trevor Honorary Life Membership in 2013, despite not achieving the normal milestone of 50 years' service. And in 2008, the Queensland Branch renamed the two RACI Academic Prizes offered at the University of Queensland School of Chemistry and Molecular Biosciences as the RACI Trevor Appleton Awards for Level 1 and Level 3 Chemistry.

Trevor was nearly lost to science. At the completion of his Queensland Senior Year (as the final years of school were called in the 1960s) Trevor was ranked sixth in the State, and had the opportunity to study medicine. He chose science instead; medicine's loss, science's gain. Trevor's early academic promise showed itself fully at university, where he was awarded the Edward Taylor Prize in 1964, the CSR Prize in 1966 and a University Medal for academic achievement. Trevor completed his Honours and PhD with the late Dr John Hall, in 1966 and 1970.

A PhD is an opening to the world of academia. In Trevor's case, it took him to the University of Western Ontario in Canada to work with Howard Clark. Among the postdoctoral fellows were Malcolm Chisholm and Leo Manzer. The group was working on aspects of organometallic chemistry of platinum and this led Trevor to the area of platinum complexes. In one of those fortuitous circumstances, Trevor and Leo Manzer were asked to write a review on a little understood area of platinum chemistry called the 'trans influence'. This review, published in 1973, became a seminal article in the area, and its importance can be viewed by the number of citations it has received - to date 1417.

After leaving Canada, Trevor went to the Research School of Chemistry at ANU in Canberra to work with Professor Martin Bennett. At that time the Research School was the principal chemistry research institution in the country and a position there was much sought after. In 1974, Trevor moved to the University of Queensland. He progressed through the academic ranks from Senior Tutor to Associate Professor, each successive rank being achieved through recognition of his scholarship and teaching excellence, and service to the university body and to the profession. Trevor demonstrated many strengths, and for many years he filled the role of Assistant Director of Studies in the Faculty of Science.

In teaching and mentoring, Trevor fostered 12 PhD students (many of whom now hold academic positions in Australia) in a long and extremely fruitful collaboration with Associate Professor John Hall, as well as 20 Honours students. Trevor taught at all levels in the Chemistry undergraduate programme and in a number of areas, many not deemed to be his area of 'speciality'. Trevor was academically broad in his skills, and he was recognised as a thoughtful, thorough and good teacher who was interested in students learning chemistry, and also learning the broader skills of being a good scientist. Moreover, and importantly, Trevor cared about all his students. Trevor was also a driver of significant innovation, and was the major instigator of the computer-managed testing system for students, which still lives on today in a newer form.

Over a period spanning 40 years, his research and subsequently that of his group was published in national and international journals and his group at the University of Queensland became internationally recognised for its work on the synthesis and nuclear magnetic resonance studies of platinum-containing complexes. This work had a lasting impact, and by all the criteria used these days to quantify research, has stood the test of time. Trevor was a quiet achiever who had a huge influence on the work of others, work that has led to the development of a new generation of platinum anticancer drugs. Trevor published more than 100 publications, which have been cited more than 5000 times.

Trevor always had interesting stories to tell when meeting up with friends and colleagues at some international conference, as he had usually travelled to wherever it was by a rail journey of some sort. During childhood, Trevor developed a passion for shell collecting and his extensive shell collection is truly something of beauty.

Trevor was a fearless defender of what was right; he was not afraid to speak his mind if he felt that something needed to be said. Trevor once said that he followed the dictum of Chinese general Sun Tzu - pick your battles - but when he did pick them they were fought with skill and logic. Tributes have been received from friends and colleagues throughout the world.