September 2022 University of Canberra Graduation Occasional Address

Faculty of Education, Faculty of Health (Nursing & Midwifery) joint ceremony 19 September 2022:

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Professorial Fellow (UC Research Institute for Sport and Exercise), Senior Australia of the Year recipient 2017, Former Australian Rules footballer

Chancellor Tom Calma, Vice-Chancellor Paddy Nixon, Council members, Executive members and academics from both faculties; Professors Michelle Lincoln and Barney Dalgano, Executive Dean, Faculties of Health and Education respectively, University of Canberra graduates, family and friends

I also respectfully acknowledge our First Nation custodians of this land, the Ngunnawal and Ngambri people.

Graduates, and family and friend facilitators, please accept my hearty congratulations. This is a day to remember; an achievement of which you can be extremely proud. It is no more evident than right now, still amidst this COVID pandemic, why nursing and teaching are two of the most noble professions. Through your education and nursing skills, you are poised to make an ongoing contribution to the quality of life of Australians for many years to come. And perhaps not as well recognised, as the years go by, you'll come to realise, as I have, that continuing to make a meaningful contribution to society is vital to one's own quality of life, to one's own physical and psychological wellbeing.

Deciding what to speak on today was no easy task. But this evening, I've decided to pay homage to our university, and focus on the important role that a solid systematic university education plays in your life and mine. Because I've been asked to speak of my own personal experiences and professional life, I'll try to convey to you how important a university education has been to me; how university continues to allow me to make a small contribution to society.

Even though most of my specific academic pathways and professional objectives are associated with science and sport, they also involve schools and health, and as fellow graduates I do feel share many common interests. As I speak of personal university-related experiences, please reflect on what UC has meant to you; how the bank of knowledge and experience you've acquired through a disciplined structured course has equipped you meet the vocational challenges you anticipate, and others that you may not.

I wonder whether your career aspirations were set, at least to some degree, during your childhood? Think back. Mine certainly were. Let me give you just one example. Let's turn the calendar back 68 years. It's 1954. For you, it's eons ago. For me, it's yesterday. I'm a young kid growing up in the middle of a sport-crazed Melbourne. (It hasn't changed). Of many memories, one stands out.

It was the running of the first ever sub-4-minute mile. Ever since the first modern Olympic Games in 1896, athletes had been trying to run a mile in under 4 minutes. Decade after decade, champion after champion had failed in numerous attempts. Physiologists decided that some things were simply out of human reach, and a sub-4-minute mile was one. One sporting commentator in the early 1950's suggested that "the probability of a man running a sub-4-minute mile is about the same as that of a man setting foot on the moon"; a considerably more prescient comment than ever he might have imagined.

One morning, and to be precise, on the 7th of May 1954, before setting off to primary school, as usual, I ran out to the front porch of my inner Melbourne terrace house in Parkville to pick up our morning paper, the Melbourne Age. I was astonished to read that the impossible had happened. An Englishman called Roger Bannister had run a mile at Oxford in 3 minutes 59.4 seconds. I could not believe my eyes. But it didn't finish

there. Just a couple of weeks later I was to be totally stunned again to hear that an Australian, John Landy, had become the second man to do the impossible when he ran a mile in Turku, Finland in 3 minutes 57.9 seconds!

So the seeds of my fascination with human performance and a love of sport were well and truly sewn in my childhood. I recall wondering what enabled those two runners, and only those two runners, to run so fast over four laps without stopping. The scientists said it was all about how well the heart could pump blood. I took the tram into the city to the Melbourne museum to inspect the preserved heart of legendary Melbourne Cup winner Pharlap. It was huge. I imagined then that Roger Bannister's and John Landy's hearts must have been exceptional large too. Little did I realise that 15 years later I would be measuring the structure and function of several 4 minute-mile runners myself with a new device previously only used to view unborn babies, called ultrasound. A device I suspect many of you are well accustomed! And how about that second 4-minute mile barrier being broken in such quick succession after the first? Surely this was no coincidence. It got me wondering what part our brains played in human physical performance. No-one had heard the term sport psychology back then.

Strangely and unusually, my love of universities was also acquired during primary school.

By the time I left primary school, I knew every nook and cranny of the University of Melbourne. I went to primary school in the grounds of Melbourne University in a teachers' college practising school which simulated a rural environment. The only disadvantage was that my school had only 4 kids in each grade with all grades 1-6 in the one room, and we could never field a decent cricket or football team. For 6 years, I walked through the grounds of Melbourne Uni every day, peeping through windows, fascinated by bearded chemists at work with bubbling flasks, and watched students enjoying themselves, laughing and chatting away as the peeled out of lecture theatres. I liked the place.

To study education and science was a given for me. My father was a science teacher, my mother a primary school teacher. They loved their work. On finishing High School, in a world of cricket and football, I chose to study Physical Education and Mathematics and I was back at Melbourne University. On graduating I really enjoyed teaching year 12 mathematics in my tracksuit and runners. It raised the status of PE in that school. But it wasn't too long before my early curiosity about human performance led me back to Melbourne University. I needed a better understanding biochemistry and physiology. Playing and coaching sport professionally not only funded my studies but taught me the value of teamwork. I applied this to my research, teaming up with experts in disciplines I knew little about. The value-added nature of this work was so enjoyable and productive that almost every project I have ever undertaken has involved collaborators of varied disciplinary expertise.

In 1981, I was invited to set up a scheme, hire a staff and design a set of laboratories in Canberra at the newly formed Australian Institute of Sport. Rather than the university model of seeking new knowledge and publishing findings, this new concept of Sports Science would focus entirely on helping coaches do their job more effectively. But in recognising the value academic staff and students could provide, we teamed up with research staff at the Science and Medical faculties at the ANU and Canberra College of Advanced Education (soon to become the University of Canberra). Our Olympic medal count improved from 9 medals in 1980 to 58 in 2000.

At that stage, I was drawn back to my physical education roots, and rather than being motivated by medals, my motivation turned to researching the role physical activity might play in public health. By the year 2000, we were all very aware that advances in modern technology had a downside. A correspondingly dramatic reduction in obligatory daily physical activity coincided with a new epidemic of obesity and chronic disease across Australia, and our kids were right in the middle of it. With physical education teachers becoming an extinct species in many primary schools around Australia, we needed to provide our policy makers with solid evidence that things needed to change. ANU and UC staff were keen to collaborate, and we set up a multidisciplinary longitudinal study, starting at childhood to investigate the effect of physical activity on the physical and psychological health of a cohort of 8-year-olds. We intend to follow them right through to age 80. That study is called the Lifestyle of our Kids or the LOOK study, and the breadth and robust nature of our measures and solid evidence of our findings are well known nationally and globally.

I mentioned that contributing to society improves our quality of life. That's true, for several reasons, because the associated happiness and satisfaction has a healthy, stabilizing effect on our blood biochemistry. And to take this opportunity some evidence-based advice. A sedentary lifestyle is a potent threat to our quality of life. Insufficient physical activity leads to premature ageing of our vital organs and early onset of physical and psychological dysfunction and disease. It's so important to make physical activity one of your daily objectives.

So, to all new graduates, let's salute UC and your university degree as the cornerstone of your professional career. But, as all teachers and nurses well realise, getting out full time into the wide world into the clinics, hospitals and schools is where the next phase of learning takes place. And finally, while the contribution you will make to the quality of life of countless people is a fulfilling end in itself, I wonder how many of you share that ongoing curiosity which drives you toward more formal learning and research? It's great to know that UC is always there.

I wish you every success and satisfaction in your journeys in education and health care. Your vocations have been exceptionally well chosen.