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# Musings on mentorship

**Significance:**

Mentorship has always been a key component of postgraduate student education, and it is becoming increasingly important in the academic environment. Strong mentorship is widely recognised as a key aspect of professional development and career success. Our view is that mentorship is a lifelong process extending beyond just teaching, and encompasses a wide range of aspects of the relationship between someone who is more experienced and someone who is less experienced people. We see this as a two-way process, where both mentee and mentor benefit. It is ideally a personal relationship in which mentors are well respected in their fields, earning the respect of their mentees, who benefit from the ideas, insights and skills of their mentors. We argue that the lives and careers of both students and academics would benefit from universities establishing formal, non-bureaucratic structures to promote positive mentorship.

The notion of mentorship is becoming increasingly common in the academic environment. Its growing importance is reflected in the fact that some institutions include it in Key Performance Areas of employment. Mentorship is an interesting and complex concept because it encompasses far more than merely the idea of ‘teaching others’. The word has been part of the English language since the late 1600s and it references Greek mythology. In Homer’s *Odyssey*, when Odysseus set off to fight in the Trojan War, he left his son, Telemachus, in the care of his elderly friend named Mentor. Mentor was extremely wise, and his role was to act as a personal guide and advisor to the young man, providing inspiration, good counsel and good example.<sup>1</sup>

Today, mentorship is broadly used in the work environment and refers to many different aspects of the relationship between a less experienced and a more experienced person. Our views expressed here are, of course, based on our own academic experiences, having spent our careers in university situations where we have had the privilege of guiding mainly postgraduate students in the broad fields of microbiology and genetics.

Academics, most often towards the end of their most active years, are frequently asked to comment on what has contributed to any success they may have achieved. In our case, we have often stated publicly that whatever our accomplishments, mentorship has been central. But without being merely a shallow platitude, what exactly do we mean by mentorship? Over many years, and over many glasses of wine, we have debated this at some length. At the core, we believe mentorship is a process, not a moment in time. And it is a lifelong process. We have gained a great deal from our own mentors, and we hope our mentees have gained from us. Within a lifetime, one can have many mentors who inspire and advise. They all assist in how we overcome challenges and develop our own interests and careers.

What is mentorship? How does it differ from teaching? Most references to mentorship come from the formal work environment where senior employees are tasked with mentoring more junior staff members. This can raise the question as to where the difference lies between training, provision of advice, and mentorship. Are senior staff members in organisations or advisors to students really mentors, rather than colleagues, friends, and teachers? Our feeling is that true mentorship is a relationship that cuts more deeply than this. Moreover, whether formal or informal, it is a two-way process with learning and friendship benefitting both mentee and mentor.

Because mentorship involves two people, the relationship is intensely personal. The mentor needs to be someone whom the mentee admires, and who is well respected in their field and able to discuss ideas, skills, and insights. The mentor is also a champion of the mentee, a confidante on the academic journey. This relationship is a safe space for the mentee, and the mentor a safe companion with whom to share disappointments as well as highlights and successes. The process between the two is about developing a career by way of shared experiences. Mentors are an understanding support, but not necessarily an uncritical one – it is a collaboration around mutually beneficial empowerment and openness. Mentorship should be about building confidence, transferring skills, providing a positive role model, and understanding.

We began to think intensively about mentorship when, in 2014, we were awarded one of the first six South African government identified and supported DST (now the Department of Science and Innovation; DSI) Centres of Excellence (CoEs) managed by the National Research Foundation. The CoEs have been extremely successful and have considerably influenced South African science. Given their broad and diverse subject areas, they have incorporated mentorship in all activities. In the case of our CoE, Tree Health (now Plant) Biotechnology<sup>2</sup>, there was sufficient funding to establish a mentorship experiment at another level. This formal mentorship programme involved identifying second- and third-year undergraduate students and pairing them with mentors from our postgraduate programme. The students who entered the programme were given some funding towards their studies and the relationships that developed between the two individuals were evaluated, by both mentors and mentees. In cases where students (mentees) and mentors were shown to have developed positive and meaningful relationships (importantly not master/slave or teacher/student), they were given a second year of support. The programme was very successful, and many past undergraduate students regard this programme as the key to their later success in postgraduate studies and early careers. Given our successful experiment, we believe that formally structured mentorship programmes have a large impact on postgraduate research programmes. The process works in at least two ways: postgraduate students experience what being a mentor means, while mentees benefit from exposure to a research environment. This enables mentees to make better choices about their future study options.

Our view, shaped by our own experience, is that mentorship should entail setting positive examples with kindness, generosity, and understanding. What is important, particularly from our experience as mentors, is that we try not

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to require our graduate students to do more than we are prepared to do ourselves. In this respect, we are passionate about our research, committing long hours to this endeavour. From a mentorship perspective we tend to expect those who seek our mentorship to do the same.

Occasionally there is reference to mentors as 'tormentors' – people who are firm and demanding. Nothing is further from a successful mentorship. While we understand well that effective mentorship needs some clear structure and that there must be high levels of mutual respect and commitment, we see mentorship as a relationship. A relationship closer to a friendship bound by a clear desire by two people to learn from each other, but typically with one having more experience than the other.

We understand that our philosophy regarding postgraduate student mentorship does not conform to that of some others. In addition to 'tormentors', another approach goes by the name of 'mummy mentorship', perhaps tongue-in-cheek. We have observed mentor colleagues treating their mentees like children, even referring to them as 'the kids'. Our experience has been that postgraduate students, who are, after all, adults, typically do not respond well to being patronised. When students fail, as they will do from time to time, it is a mentor who needs to provide encouragement and support to them to continue the journey and show how improvements can be made. Guidance and encouragement are not the same as 'parenthood'.

In the past, we have spoken of 'mentorship chains' in the academic environment. This is mentorship that begins from the early years of postgraduate education, viz. a master's degree. Here, PhD students were mentors, and they themselves were mentored by postdoctoral fellows and so on up the ranks of academic life. Retirement does not end mentorship – as we ourselves have discovered. The academic and research environment is complex and achieving success can be very demanding. We often shudder at seeing early-career colleagues taking on inordinately large numbers of postgraduate students. Clearly this detrimentally affects the academics' own early careers, but it can also have negative impacts on the students too. Merely having a PhD is not necessarily the experience required to advise a PhD student. Both the qualification and experience are needed for a successful outcome. This, and other ideas on mentorship, are discussed in Malcolm Gladwell's interesting book.<sup>3,4</sup>

Postgraduate student mentorship is based strongly on inter-personal relationships. There is consequently no ideal model for everyone – there is no widely applicable 'blueprint'. Each student is an individual and needs to be treated as such. Personal strengths and weaknesses of graduate student mentees need to be identified and a good mentor

'fit' found. It is also worth remembering that PhD supervisors may not always be the most appropriate mentors for their students – they are in a teaching role as experts in the specific field. This topic needs further consideration and academic mentorship should be given more philosophical and practical attention.

We have raised various thoughts on graduate student mentorship that have emerged from our careers as academics. We are not experts in the field of mentorship and others may differ with our ideas. The fact that there are disagreements and differing approaches highlights the importance of the topic and the fact that more careful attention in academic environments is required. It seems that mentorship in universities is generally a topic left to develop (or not) informally and without guidance or debate. This is a situation that needs to change. We would advocate formal (but not bureaucratic) structures that promote an understanding of graduate student mentorship and how this might best be applied. This would surely improve the lives and experiences of academics, their students and overall research excellence.

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## Competing interests

We have no competing interests to declare.

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