# Editorial

## Wayne Hugo

Melanie Walker and Monica McLean are two exceptionally brave academics who attempt to articulate an ethic for professional education. Moses came down the mountain weighed down with 10 commandments; Walker and McLean are far more consultative, open and dialogical about the process, but in the end they arrive at eight professional capabilities we need to consider embedding in educational arrangements to prepare graduates to act rightly in conditions of deep inequality and poverty. If we lived in an Islamic or Christian state this would not be an issue, for an established ethical and moral order would exist across all levels of society. But with the rise of secularism and the separation of religion from the functioning of the economy, the law, the state, and even the education system, we find ourselves in a massive ethical void, left with no god-given set of commandments to guide us. We have no long history of rituals, lore and parables to give us light and guidance. How do we educate our students to act rightly in the process of specialising them for a profession? Most of us accept that universities should be involved in the ordering of knowledge, but should higher education also be about how we order our lives? Should professional education be about wisdom as well as knowledge and application? Given how rampant the current use of knowledge is in actively destroying our world, this question of the relationship between the epistemic and the ethical in the professions becomes one of the central defining issues of our generation.

It's not enough to point to the internal dynamics of knowledge pursuit providing its own ethics. There is an internal ethic to the process of specialisation that comes from the need to concentrate and learn for long periods of time in ways that discipline the mind and body of the student. This offers no protection against the malevolent but self-disciplined professional. Is a Capabilities approach any stronger? Can it provide a modern and secular ethic for professional education? Should universities embed in their functioning a set of professional capabilities that produce graduates who have an appreciation of human dignity and evaluate what they do in the light of the larger public good? If so, what would these professional capabilities look like? Walker and McLean's research on the issue really does deserve a wide audience as it deals with these issues all of us face. I am deeply supportive of such a project but at the same time have strong reservations. My reservations coalesce around two major concerns: whether the Capabilities approach provides the correct level of focus in the context of professional education; and the adequacy of the capabilities approach to carry the weight of development ethics. Walker and McLean emerge with a set of eight capabilities that straddle five different professional groupings: Social Work, Public Health, Law, Engineering, and Theology. The question that immediately jumps out for me is whether the correct level of focus to these questions is not best set at that of the individual professions and their ethical codes. At this level you can focus in on the ethical demands specific to each profession and also provide enough substance and enforcement to carry the demands into the light of day. There is a real danger that focussing on a level of ethical intervention at the level of professional education in general provides too broad a set of principles to be of practical use. For example, Engineering students are not renowned for their emotional reflexivity, as Walker and McLean's data showed up, but unlike Social Work, Public Health, Law and Theology, it is not clear that emotional reflexivity should be a part of their professional capabilities. Lack of cultural reflexivity has probably got more to do with Engineering and the peculiar demands such a profession makes and calls for.

It's not clear that the Capabilities approach can actually work at the level of specific professions. 'Capabilities' are too generic a set, even if you attempt to provide realisable functions, as Walker and McLean do. It's almost like those involved in arguing that our modern economy needs generic skills (or learning how to learn skills) have found an ethical counterpart in the Capabilities approach theory, and this is not surprising, given the intellectual origins of Capability theory in Economics. One always has to be careful when an ethical approach like Capabilities suddenly finds itself with a massive groundswell of support, especially from the establishment. It could be because it has articulated something new that answers an increasingly pressing question facing our modern generation; or it could be that it resonates with the dominant forces of network capitalism currently running rampant through our world; or it could be a little of both.

But as critical as I personally am about the Capabilities approach, I am deeply supportive of the project Walker and McLean are engaged in, because at least they are attempting to answer the hard question of the relationship of professional education to ethics in a secular world riven with inequality that combines theory, active engagement and empirical research. I might prefer a different level of focus, but Capabilities certainly does provide the right co-ordinating theory at the level of professions as a whole, rather than individual professions in particular. We need numerous answers at different levels from a diverse range of intelligent and well-informed individuals, for that gives us 'the wisdom of academic crowds' (with apologies to James Surowiecki). It's also why journals such as ours are of such value to all of us.

What happens if instead of working with professional education as a whole, we take a look at one profession in particular – teaching? Francine de Clercq provides both a historical overview of the developments in teacher professionalism in South Africa over the last 20 years and a diagnosis of what can still be done to improve matters. She ranges over struggles between the Department of Education and SADTU, alternative positionings of the various unions, the weakness of SACE, and recent developments such as establishment of NEEDU. My own position – that it is at the level of the individual profession where you need the strongest form of regulative control - makes a reading of her paper painful, for in SADTU and SACE we have the turning of professional teachers into workers and the toothless bite of an underfunded regulating body. SADTU is currently shifting from this position, and has 2030 as the date for its shift from militancy to professionalism, something that needs to be celebrated as a mission and taken seriously in practice, as sixteen years is not a long time. In the meantime. . . NEEDU, we need you.

If level of focus was an issue with the Capabilities approach theory and professional education, then a similar issue arises inside one profession. Here the question is the focus on the profession as a whole or the independent subject-based organisations within the teaching profession. Organisations such as the Association of Mathematics Educators of South Africa (AMESA) and the Southern African Association for Research in Maths, Science and Technology Education (SAARMSTE) are doing sterling work. Is it not possible to expand their role in South Africa by encouraging the development of subject specific associations for all subjects, thus increasing professionalism at the level of the subject rather than that of the teaching as a whole? De Clercq certainly thinks so and argues for the need to strengthen independent, discipline based, professional organisations that work at a subject specific level, given the current struggles in SADTU and the malaise in SACE.

#### 4 Journal of Education, No. 57, 2013

So if we take the profession of teaching as our natural level of focus (LO), then we have a level above (L+1) and a level below (L-1) appearing, based on the discussion so far:

#### L+1 professional education in general (Capabilities approach)

#### LO the profession of teaching (SADTU, SACE, NEEDU)

L-1 subject specific teaching associations within the teaching profession (AMESA, SAARMSTE).

We need all three levels, but it's trite to see them as equally important. We have limited time, effort and money, and there are opportunity costs to how we conduct ourselves. Where can we make the most intense of interventions with the most leverage?

I would argue it's in what has been assumed by all three levels but left unarticulated – the specialisation of those of us teaching teachers. How can it be that we focus on the professionalism of teachers and background teacher education? What qualification and expertise do you need to teach teachers? What are the internal quality controls we have across the country that ensure those of us teaching teachers are actually up to the task? We want teachers to pass knowledge tests in their subjects; what tests do we need to pass to become teacher educators? We want inspectors to come back into the classrooms; what about them coming into our lecture rooms? Surely we need to actively pursue the task of specialising ourselves as well as calling for the professionalism of those we teach. What are the best practices in teacher education, what can we learn from other countries, what are the different models, what is research currently pointing us towards? It could be that we need to start exploring the professionalisation of teacher education as well as the professionalisation of teachers?

We can see an example of what it means to take teacher education as a specialisation seriously in the article by Devika Naidoo and Hamsa Venkat. They plunge into the pedagogic discourses of teachers engaged in teacher number concepts at Grade Two level and do not step away from the complexity of engaging with the pedagogic act flowing through the lessons. Analysing pedagogy is hard, precisely because it moves with the demands of the concept being taught combined with the contextual conditions it is occurring in, which change in real time. Where do you find an analytical tool that enables a tracking of the flow of meaning? One possibility is Systemic Function Grammar (SFG) and the linguistic resources it offers to intricately describe coherent discourse, and this is what Naidoo and Venkat demonstrate for us. Using concepts that specifically identify what a coherent discourse looks like (synonymy, antinomy, hyponymy, meronomy, repetition, substitution/ellipsis, co-referentiality, structural cohesion) they clearly demonstrate how we can actively analyse levels of coherence in pedagogic sequences. As specialists in teacher education, such attempts to get a detailed handle on the flow of pedagogy should be stimulating debate and emulation across South Africa. Is SFG the right way to go in developing a detailed and systematic analytical language for pedagogy? Maybe it's too linguistic in orientation, maybe it does not get enough of a handle on the structures of knowledge and pedagogy because it's about the structuring of discourse, and discourse is far too distant from the intimate act of teaching? Maybe it should be combined with neo Piagetian developments currently much under-rated in our teacher education curricula? Allow me to run with this a little.

Robbie Case (1993, 1996) was a key neo-Piagetian who both theorised and empirically researched how children develop an understanding of number concepts and the number line. In more developed countries, within middle class families at around the age of four, children have two central numerical structures – one that works with more and less, and another that works with counting.

#### A



В



Figure 1(A) and (B): global quantity schema and counting schema (Case 1993, 225)

Around six years of age, these two schemas merge in to something like the following central numercial scheme.



Figure 2: Central numerical structure (Case, 1993, 226)

This synthesis of two elementary numerical schemas is partly due to the child reaching a stage of development (that Case calls the dimensional stage). Explicit teaching of the central numerical structure to elementary school teachers and their learners results in an amazing jump in learner's numeracy abilities (Okamoto, 2010). If we, on the one hand, try to get a handle on what the actual development of a number line sense entails (Robbie Case) and on the other, develop an ability to analyse the flow of pedagogic interactions (reworked SFG), and then combine both with an analysis of how the curriculum on number is structured and sequenced, then we are beginning to live what it means to be a professional in teacher education.

I don't think the above example is too specific, or too specialised, for all of us in teacher education. Grappling with how to analyse the flow of pedagogy, the development of schemas, and the structure and sequence of curriculum should be grist for the mill. Part whole relations, simple to complex relations, specific to general relations, concrete to abstract relations – these are not components of some strange logic or linguistics course, they are the basic operations that define what teachers do, and we should be specialists in them.

Granted, you could feel some despair. Our field continues to move. It's not Piaget vs Vygotsky anymore (which is a misplaced fight anyway); it's the neo-Piagetians and the neo-Vygotskians, and both coming to terms with recent developments in Neuroscience on the one hand and network theories on the other. The issue is we don't have a settled curriculum that we induct our teacher educators into. What do we need to learn in order to become a teacher educator? It surely cannot be enough that we were teachers in the past and now happen to be teaching at a university with some kind of a PhD, important as all of this is. It's us who are responsible for teaching the teachers, who is going to teach us?

Giulietta Harrison and Azwihangwisi Muthivhi keep the focus on young children but use Vygotskian and neo-Vygotskian theories of self-regulation to demonstrate how active teacher mediation at preschool level (4–6 years of age) can improve self-regulation. Numerous examples are given of how the children improve their emotional engagement, problem solving skills and discursive responses. For example, where would you hide if you were Jack (from the beanstalk) and the giant unexpectedly arrived back to his home in the clouds?

- A. In the oven thingy
- B. In the oven
- C. In the bath tub

C, of course. Why? Well in the reasoning of one of the pre-schoolers – Because the giant won't be bathing, he's just dirty. . .He doesn't brush his teeth, he has bad manners.

The teacher responds to this 'O.K. . . . that's a good idea'. And I suppose it is, except . . . if I was the teacher. . . I would wonder aloud about the giant needing to go for a poo, which we all know big giants do, given how much they eat, and the consequences of disturbing a giant on the loo are just too awful to contemplate. Harrison and Muthivhi provide us with an account of how, even at preschool, we should be working on developing characteristics of self-regulation.

Shifting from preschool to PhD, Jane Castle provides us with a well-written account of how many PhD students within a specific school of education tend to characterise their journey in heroic terms. I suspect this is not an unusual trope across our schools, given the difficulty of the journey and how it should transform you. As one student dramatically put the experience:

"It was pure hell. . . I had to stand on my own, fighting for time, fighting for money, for space. . . and the targets were always shifting. . . I was so busy fighting. . . I had no time to bleed. . . In the end I succeeded, but it was pure hell and determination."

A heroic journey goes through three processes – departure, initiation, return – with the whole impact of the journey being one of transformation. Transformation into what? The PhD indicates the shift from the status of student to that of academic peer. It is unclear to me that the current pressures on our institutions to get PhDs is subverting its transformation potential. It used to be true that a PhD was a strong indicator for improved research productivity and informed teaching. But the more pressure that is placed on pushing PhDs through, the less this link holds. There is a difference between a heroic journey and jumping through hoops.

The final article in this issue provides a much needed history and update of the state of school libraries in South Africa. A sad state of decay due to lack of governance is outlined. We have lost an organising centre (the national library service unit); there is no clarity about which government department is responsible for libraries, and hence not much accountability, except when activist organisations like Equal Education get involved. Not that there is much accountability after they get involved. What Margie Paton-Ash and Di Wilmot don't mention is how rapidly out-dated the idea of a hard copy library is becoming, just as the idea of a 'hard copy' school is fast reaching the end of its production line. The type of schooling we currently are so familiar with is an historical occurrence that arose with industrialisation, and as this mode of production comes to its digital end, so will our factory schools with its factory teachers.

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