

# Transformative teacher education in a time of crisis

Inaugural Lecture given by Professor Di Wilmot  
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## Abstract

Quality education for all remains an elusive ideal in South Africa where the schooling system, almost 25 years after political freedom, is characterised by severe inequalities along racial and socio-economic lines, high dropout rates and low learning outcomes. Globally and nationally it is recognised that the quality of an education system cannot exceed the quality of its teachers or the quality of its teaching. If teachers are to play a critical role in improving the quality of learning, they need to be well-equipped, well supported and accountable. The focus of this lecture is on how teacher education at a systemic, institutional and personal level, is responding to the quality education imperative in the context of a complex, multi-dimensional and ongoing crisis in schooling. This lecture juxtaposes a sobering account of this crisis, which has invoked an emotive response of despondency, despair, and loss of confidence in many South Africans, alongside an account of transformative teacher education initiatives which may engender hope and confidence for the future. My main contention is that South African education is fraught with challenges, problems and contestations, yet remains vibrant, dynamic and full of opportunities for innovation, re-imagining and renewal.

There is a crisis in education globally with regards to access, gender equality, and quality education for all that is especially acute in developing countries (Moon, 2013; UNESCO, 2013; 2015a, b, c, d). The crisis in South Africa is exacerbated by our divided and unequal past. I begin my lecture by saying something about the crisis in South Africa's education. This is followed by an overview of key developments in teacher education and schooling since the transition to democracy in 1994. It is against this backdrop that I then describe my scholarly trajectory.

A snapshot of the South African schooling system in 2016 reveals that there were

- 12,9 million learners in ordinary schools
  - 12,3 million (95%) were enrolled in 23 719 public schools, taught by 381 394 educators
  - 590 352 were enrolled in 1 855 independent schools, taught by 37 219 educators

These statistics<sup>1</sup> give some idea of the size of the national schooling system while the following provide insights on levels of poverty in the system:

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<sup>1</sup> <https://www.education.gov.za/Portals/0/Documents/Reports/School%20Realities%202016%20Final.pdf?ver=2016-11-30-111439-223>

There were also 295 942 learners enrolled (2.3%) in ECD centres and 117 477 (0.9%) in special schools (DBE, March 2016).

- Nationally, 65% of learners attend no-fee paying schools (Quintile 1,2 and 3 schools) in 2014 (StatsSA, 2014)<sup>2</sup>; with 82% of learners in the EC attending no-fee schools in 2014 (compared to 41% of learners in the Western Cape and 45% of learners in Gauteng)
- In 2013/14 the National Schools' Nutrition Programme (NSNP)<sup>3</sup> fed 9,1 million of 11,9 million children in 19, 383 Quintile 1, 2 and 3 public schools (DBE, 2015: 5)

Unlike many African countries, South Africa has made excellent progress with access to schooling since 1994 and today 98% of learners between the ages of 7 and 17 are enrolled in school. That said, there are still many problems in our schooling system, the overarching one of which is **systemic underperformance**. The majority of South African learners are not receiving a quality education and what makes matters worse, according to the National Education Evaluation and Development Unit [NEEDU], is that

“the quality of schooling is inequitably distributed, with the poorer 80% of the population generally receiving schooling of significantly inferior quality to that enjoyed by the most affluent 20%. The majority of South African children – from homes of working class or unemployed and frequently child headed households – attend township or rural schools...

On the other hand children located in the rapidly deracialising middle class, attend schools (most in urban centres) formerly reserved for minority race groups, which generally produce educational achievement that is closer to the standards achieved in developed countries (NEEDU, 2015: 2).

A report released a few weeks ago by the Centre for Development and Enterprise (August 2017) notes that:

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<sup>2</sup> In 2005, the South African Schools Act was amended to establish a quintile system. This was in response to unequal access to quality public schooling. The development of no-fee school policies has resulted in an increase in learners who do not pay school fees, from just 3% in 2006 to 65% in 2014 (StatsSA, 2014). “Under the quintile system, schools are categorised into 5 groups (quintiles) based on the relative wealth of their surrounding communities. Schools in the poorest communities are classified as Quintile 1 and schools serving the wealthiest communities are classified as Quintile 5. Quintile 1, 2 and 3 schools are not allowed to charge fees and are often referred to as no-fee schools” (Ally & McLaren, 2016).

<sup>3</sup> The extent of poverty in South Africa, especially the EC, is also evident when one considers the level of support provided by the National Schools' Nutrition Programme (NSNP). This programme, introduced two decades ago, is a state initiative which ensures that children living in poverty are not food deprived and thus unable to participate fully in schooling. In 2012/2013 the NSNP fed 9,159 773 (of 11,9 million) learners attending ordinary public schools in South Africa for an average of 195 school days per year (DBE, 2013c, p. 14). In 2013 in the Eastern Cape, the NSNP fed an average of 1 571 872 learners in Quintile 1 to 3 public schools (of a total of 1 881 678 learners in public schools) (ibid., p. 23).

- South Africa’s schooling system does not equip the majority of learners with skills for the workplace or further study, and
- it is still characterised by persistent educational inequality with inadequately prepared teachers, poor infrastructure, poor support and management, poor school leadership, unmotivated learners, lack of educational materials, low learning outcomes, teacher morale and confidence which characterise a ‘vicious cycle of schooling’ (CDE, 2017:1).

The report identifies three key deficiencies in the South African schooling system: (1) most teachers are ill-prepared for teaching; (2) they are not accountable; and (3) they do not receive enough support to equip them as competent educators (CDE, 2017:1). The report asserts that “... getting South African schooling out of this ‘vicious’ schooling cycle and fostering a more ‘virtuous’ cycle will be difficult but not impossible” (CDE, 2017:1). Better-trained and committed teachers would certainly help, as would appropriate infrastructure and materials, and the support of school management and state Education Departments (CDE, 2017:1).

There are many factors contributing to and sustaining a crisis in education in South Africa and globally, however, the findings of international and national research widely acknowledges that the **single most important factor** influencing the quality of education is **the quality of teachers**<sup>4</sup> and that **quality of teaching and learning cannot rise above the ceiling imposed by low teacher capacity** and the cause of poor teaching lies not with teachers but with **the teacher education system that produced them** (JET, 2014:4). This raises questions about teacher education in South Africa since the transition to democracy 23 years ago.

Since 1994 teacher education and the national schooling system have been undergoing a multi-faceted process of transformation driven by the need for education and training to empower people

- to participate effectively in all forms of democratic life and build a nation free of race, gender and any other form of discrimination, and
- for education to equip them with the skills needed to alleviate poverty and unemployment, and to ensure that South Africa is competitive within a global economy (South Africa, White Paper on Education and Training, 1995: 17).

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<sup>4</sup> (Organisation for Economic Cooperation and Development [OECD], 2005; 2013; Barbour & Mourshed, 2007; UNESCO, 2013, 2015; Taylor, 2011; NEEDU, 2014; Spaull, 2013, 2015; JET Educational Services, 2014; CDE, 2017)

Post 1994 was a time of hope and expectation as our new government set about dismantling the fragmented and inequitable systems of teacher education. A plethora of policies were formulated and implemented to restructure and reorganise teacher education, **and simultaneously**, prepare teachers to implement South Africa's first national school curriculum. Within a short space of time, hope and expectation turned to confusion and despondency as it became apparent that there were unintended consequences of the many well-intended policies.

Before 1994, there were two ways of becoming a teacher: by obtaining an undergraduate university degree and 'capping' it with a one year, post-graduate teaching diploma or by completing a two or three year teaching diploma at a teacher training college or university. The majority of teachers (Black South Africans) qualified through the state-controlled teacher college diploma route. University and college qualifications differed markedly in their curriculum<sup>5</sup>, entrance requirements and length of training (CHE, 2010). It resulted in unevenness in quality which was racially defined<sup>6</sup>. In 1995 a **National Teacher Audit** found that 36% of teachers were un- or under-qualified (CHE, 2010). This created a huge demand for **in-service professional development programmes** and it led to a proliferation of different in-service teacher qualifications driven by the need for redress and equity<sup>7</sup>.

The audit also found that the production of new teachers was uneven across provinces. A **Teacher Rationalization Policy**, implemented to address this problem, resulted in the deployment of about 30 000 teachers to schools which did not meet the teacher/pupil ratio norm. This well-intended state equity intervention had unintended consequences which included a loss of teachers with high skills and experience who opted to take severance packages, and a rise in the number of teachers paid by the School Governing Bodies of the more affluent schools (Jansen & Taylor, 2003).

In 1997, **120 teacher colleges** were closed and teacher education was incorporated into universities<sup>8</sup>. This happened at the same time that higher education was restructured<sup>9</sup> and 36 higher education institutions were reduced to 21. Unevenness, inefficiencies and mergers in Higher Education destabilised teacher education. Teacher morale declined, enrolment in initial teacher education

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<sup>5</sup> With universities characterised by curriculum autonomy and the foregrounding of a strong knowledge base, and teacher colleges emphasising practice and an induction into the profession

<sup>6</sup> For example, White students needed to have matriculated (that is, passed Grade 12 of formal schooling) before training as a teacher while it was possible for Black students to train as teachers with a Standard 8 (Grade 10) school-leaving certificate.

<sup>7</sup> The audit also found that the production of new teachers for the national schooling system was uneven across the nine provinces. This resulted in a shortage of teachers in some provinces and a surplus in others.

<sup>8</sup> The assumption was that would achieve equity and efficiency and create a single national system. Ideological, governance and other differences meant that there were many challenges and unintended consequences (CHE, 2010).

<sup>9</sup> (prompted by the Higher Education Act of 1997 and the 2001 National Plan for Higher Education)

programmes dropped and the teaching profession was no longer seen as a profession of choice. This prompted the Council on Higher Education, the quality assurance body for higher education in South Africa, to undertake a **National Review of Professional Qualifications** between 2005 and 2007. I served as a member and a chair of the review panels commissioned by the CHE; the outcome of which resulted in teacher education programmes in several institutions not being accredited or being given provisional accreditation subject to their programmes being strengthened.

Instability was further exacerbated by the parallel “**curriculum revolution**” taking place in schools (Jansen & Taylor, 2003:45). Curriculum 2005 (C2005), our first national curriculum, was implemented in compulsory schooling (Grades 1 to 9) from 1998 to 2003 (South Africa. DoE, 1996, 1997). C2005, seen as the most significant reform in South African education in the 20th century, was intended to enable the schooling system to shed the legacy of a divided and unequal past and step confidently into the 21st century (Chisholm, 2000 as cited by Wilmot, 2005:2). Despite its noble intentions, the curriculum transformation process has been characterised by tensions and contradictions, and a disjuncture between what was intended and what was attained (Wilmot, 2005:2, see also Christie, 1999; Jansen, 1998, 1999, 2001).

C2005 privileged ‘doing’ (the process of learning) at the expense of ‘knowing’ (knowledge acquisition). It presupposed, as Jansen pointed out in 1997, a high level of teachers’ discipline specific (i.e. subject) knowledge and pedagogical skills, small classes and a resource-rich environment (Jansen, 1997). It ignored the reality of the majority of teachers lacking the knowledge and skills that were pre-requisite for this curriculum model to work.

By 2000, startling evidence emerging from research showed that South African children were under-performing in relation to C2005’s expected standards and international standards for the same age (Taylor, Muller & Vinjevold, 2003). A curriculum review took place and the findings confirmed that teachers were ill-equipped to implement this radical curriculum which discarded a traditional subject based curriculum framework (which was seen as favouring middle class children and perpetuating class inequalities), in favour of an integrated learning area approach, a social constructivist epistemology and progressive learner-centred pedagogy (Chisholm, 2000, 2004, 2005). **C2005 had widened the very inequalities it was meant to overcome** (Chisholm, 2005 in Wilmot, 2005:65). Teachers were demoralised and the fragile teaching profession further destabilised.

A new strengthened **National Curriculum Statement** was developed and implemented in the lower grades of schooling while C2005 implementation was taking place in Grades 8 and 9. The fluid and unstable curriculum environment made life very difficult for teachers and learners alike. By 2007

primary education was in crisis (Fleisch, 2008), the severity of which resulted in it being referred to as “a national disaster” (Bloch, 2009: 58). The Minister of Education at the time, Minister Moshekga, commissioned another curriculum review<sup>10</sup> which recommended the development of a new curriculum policy document that provided **adequate** support for all teachers (DBE, 2009: 8).

The **Curriculum and Assessment Statement (CAPS)** curriculum policy was formulated and phased in from 2012 to 2014. CAPS discards outcomes-based education in favour of a knowledge focused curriculum, and it provides very structured support for teachers, telling them what topics to cover each week, how long to spend on a topic, with suggestions about how to teach and assess.

Almost 20 years after democracy, in 2013 South Africa’s schooling system was described as being in “dire straits” because it is “grossly inefficient, severely underperforming and egregiously unfair” (Spaull, 2013, p. 3). Spaull argues that “while the roots of this system may be traced back to the apartheid era, it is inexcusable that most Black children still receive an education that condemns them to be the underclass of South African society” (Spaull, 2013: 9). At the same time the Department of Basic Education conceded that the major inefficiency in our schooling system was the low quality of learning and teaching especially in the early years of schooling (DBE, 2013:4). The consequence of this was delayed and incomplete acquisition of numeracy and literacy skills, the foundational skills on which all future learning is built.

The findings of independent studies conducted on learner achievement showed that “most South African learners cannot read, write or compute at grade appropriate levels with large proportions being functionally illiterate and innumerate” (Spaull, 2013: 3). This is illustrated by a question asking Grade 5 learners how much three grocery items with three prices attached to them would cost altogether (the prices were R5.10; R4.20 and R1.30). 70% of quintile one, two and three students in Grade 5 could not give the correct answer to this Grade 2 level question in spite of 500 hours of teaching time (Spaull, 2013b).

The situation in literacy is equally troubling. 58% of South African children do not learn to read for meaning in the first three years of school (Spaull, 2017). The findings of research conducted on selected initial teacher education programmes at five different universities in 2015/6 (the Initial Teacher Education Research Project [ITREP]) are helpful for understanding why reading is such a problem: our education programmes are not equipping foundation phase teachers with the specialized

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<sup>10</sup> This was partly because South Africa had fared so badly in the regional Southern African and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ) tests in both numeracy and languages (Maringe, 2014: 44).

knowledge to teach reading effectively (Spaull, 2017).

Underperformance of South African learners at all levels of the schooling is a major challenge, but there are other inefficiencies including grade repetition and high drop-out rates (DBE, 2013). This is illustrated in the graph (Figure 1) below. Of the cohort of 279 933 learners in the Eastern Cape who enrolled in Grade 1 in 2002, only 72 138 learners (25,8%) wrote the NSC exam in 2013, and only 46 840 learners (16,7%) passed. To make matters worse, only 13% of the Grade 1 intake (36 274) wrote the NSC mathematics examination and only 9 564 (3,4%) passed (STATS SA, 2013:73).

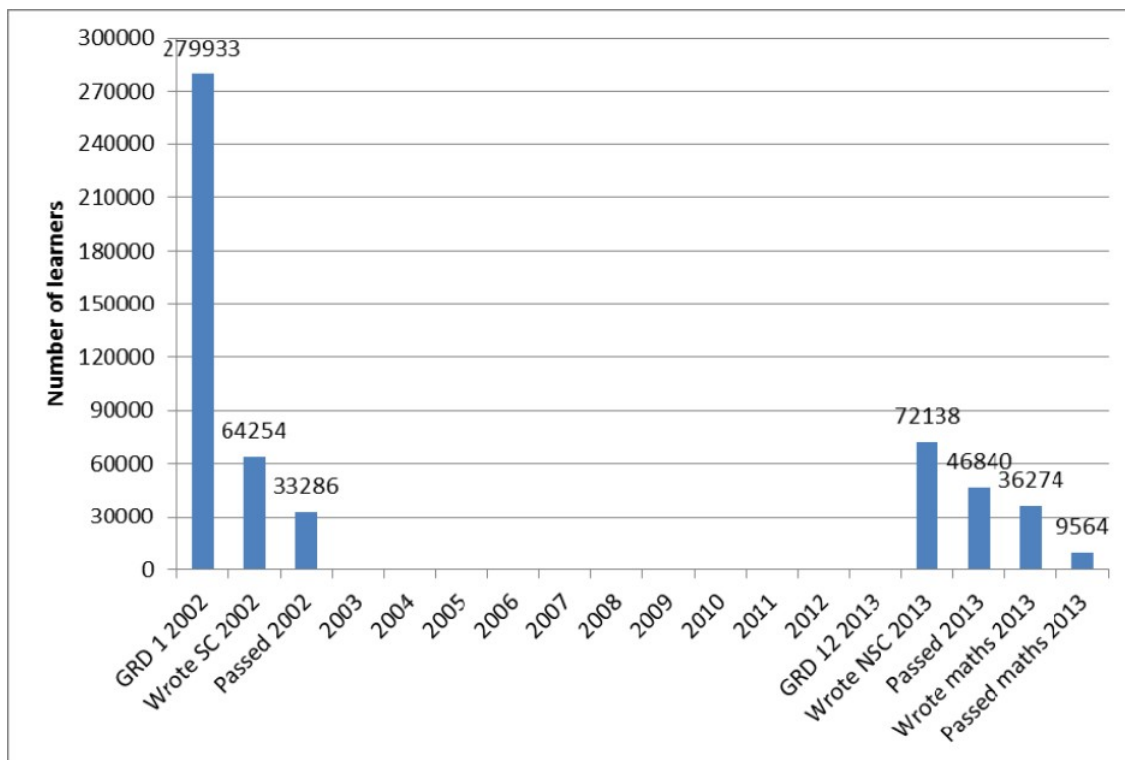


Figure 1: Progression from Grade 1 in 2002 to Grade 12 in 2013 in terms of the number of students and changes in number of students who passed NSC in 2002 and 2013

Source: NSC technical report 2002–2013 (Stats SA, 2016: 74)

**Teacher accountability** is another issue that needs to be resolved (Spaull, 2015; DBE, 2017). **Patterns of professional behaviour** of teachers, principals and officials in large parts of the schooling system is a distinguishing feature which sets South Africa’s schooling system apart from other comparable developing countries (Taylor, 2011). In a report to parliament, Minister Moshekga disclosed that teacher absenteeism in South Africa in 2013/4 was the highest of all sub-Saharan African countries (Govender, 2016). Figure 2 below illustrates how the problem is teachers not learners. The problem is exacerbated by a generous sick leave policy; the consequence of which is that the average teacher stays away from school for nearly four weeks a year – that is 10% of the school year (NEEDU, 2012: 29).

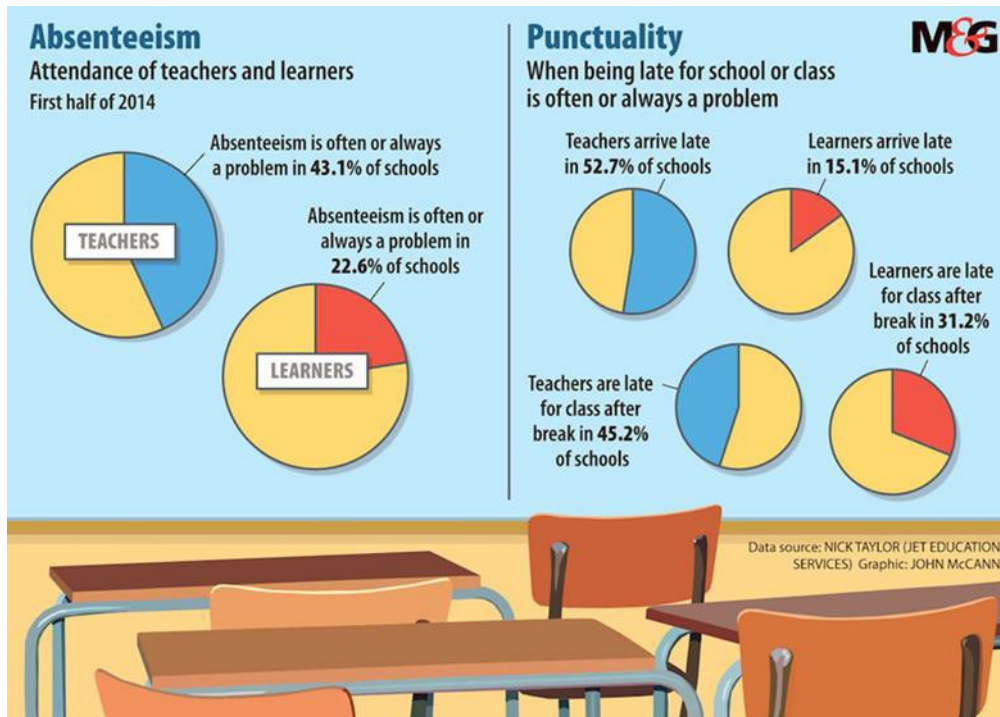


Figure 2: Absenteeism and Punctuality in South African schools

Source: <https://mg.co.za/article/2016-06-02-its-not-kids-bunking-its-teachers>

Teacher organisations play an important role in most national education systems. In South Africa the role played by unions, especially that played by the South African Democratic Teachers’ Union (SADTU), the largest and most dominant union, is a contentious issue. SADTU’s tradition of militancy and overt political activity impacts negatively on schooling. SADTU teachers often attend meetings during school hours (Taylor, 2011: 5) and SADTU’s refusal to administer the 2015 Annual National Assessment tests is seen as ‘sabotaging’ efforts to improve learning in South African schools (Nicholson, 2015).

In 2015, a Ministerial Task Team was appointed to investigate allegations into the selling of educators’ posts by members of teachers’ unions and officials in provincial education departments. The Task Team found that “the current process of selection and appointment of educators is riddled with inconsistencies, with teacher unions exerting undue influence over appointments in provinces where district authority is weak” (DBE, 2016: 18). Teacher unions have captured six of the nine provinces which “contribute to the Department’s inability to control and develop an effective education system” (Reference). The report concludes that the current practice of political appointments and cadre deployment into DBE offices and schools must be stopped (p.26). It concludes with a recommendation that appropriate action, including legal action, must be taken to address the issues. This matter is being addressed by the DBE in its Teacher Professional Development Master Plan, a draft of which was tabled



at the Universities South Africa Education deans' Forum in May 2017.

There have been a number of positive developments in **teacher education** since 2007. These include expanding initial teacher education (ITE) through state funded Funza Lushaka merit bursaries which are attracting high quality students into teaching. The DHET projects that we will produce enough teachers for our national schooling system until 2025. The **shape of the ITE** system is being addressed to ensure that we produce enough teachers for all school phases and subjects, especially mother-tongue African Language teachers in the Foundation Phase (Reception Year to Year 3). The ITE system is still very **uneven in terms of the quality** of ITE programmes (Deacon, 2016), and it is characterised by high rates of attrition and slow through-put rates (on average it takes six years to complete a four year degree).

The quality of teachers and teaching is addressed in the **Integrated Strategic Planning Framework for Teacher Education and Development in South Africa, 2011-2025** [ISPFTED], which the DHET and DBE launched in 2011 (South Africa. DBE & DHET, 2011:1). Steady but slower than anticipated progress with implementation prompted the development of a **Master Teacher Development Plan** (DBE, 2017) released in May 2017. The plan sets out specific targets and deliverables and the strategies to achieve these. Teacher accountability will be strengthened through the introduction of a points-driven continuous teacher professional development model (CTPD), a professional certificate which all teachers need to renew periodically, and the development of Teacher Professional Standards. There are also strategies for fostering a collaborative relationship with teacher unions and developing the professional capabilities of union leaders.

Teachers' poor content knowledge is being addressed through a new policy framework **Minimum Requirements for Teacher Education Qualifications** (or **MRTEQ** as it is commonly referred to), which sets out the knowledge standards for teachers (DHET, 2011, 2015). Universities are in various stages of re-curriculating all their teacher education qualifications which have to be approved by the DHET, and accredited by the CHE and SAQA before 2019. The process has been slow with bottlenecks and contestations about the appropriateness of the specified discipline knowledge for primary school teaching. Colleagues in my faculty are coordinating inter-university working groups researching the appropriate knowledge standards for mathematics in primary schooling.

As a member of Universities South Africa Education Deans' Forum, I have been involved in the national processes I have outlined. I am also involved in teacher education and research activities driven by a transformative education agenda in the Education Faculty at Rhodes University. Time does not permit me to describe the many innovative projects that my colleagues are leading and coordinating. Two key

projects in which I am directly involved are:

- starting a new four year undergraduate Bachelor of Education for Foundation Phase teaching which responds to a national imperative for quality mother-tongue African Language teachers in the Foundation Phase, and
- the Vice Chancellor's Reviving Grahamstown schools initiative which responds to the need for quality education for all in our local community, especially for the economically and socially marginalized.

The faculty is developing an engaged research and teacher education strategy to strengthen and expand its work in Early Childhood Education (0 to 9 years) that will build the field through research and professionalise teacher education at this level of the system through two new qualifications: a Grade R Teaching Diploma and a Bachelor of Education in Early Childhood Education.

A few days ago, I held preliminary discussions on the possibility of Rhodes University offering a new teacher education qualification which addresses the binding constraint of children not being able to read because teachers don't know how to teach reading. The Funda Wande ('Reading4Meaning') course, the first of its kind in South Africa, is an online course developed by a team of researchers from different South African universities to teach Foundation Phase teachers how to teach reading in isiXhosa. This innovative project has large-scale transformative potential, and I look forward to taking the proposal forward.

I have provided an overview of some of the key developments in teacher education and national curriculum implementation during the past 23 years (refer Figure 3: Diagrammatic summary of key developments).

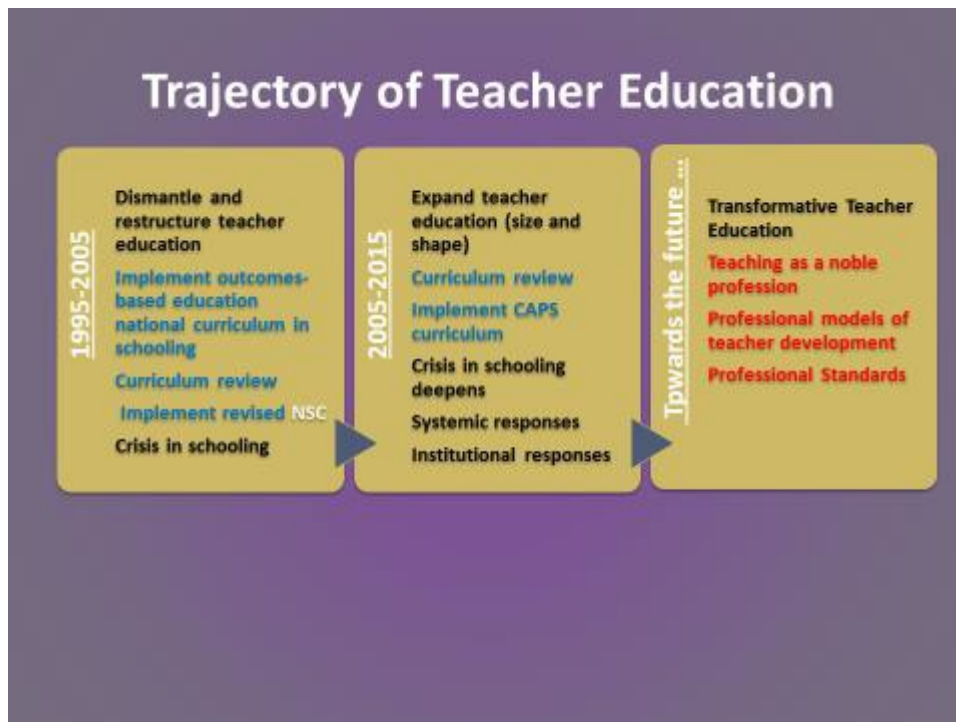


Figure 3: Diagrammatic summary of key developments in teacher education since 1994

There can be no doubt that the scale and complexity of transforming education was underestimated with insufficient attention paid to the contextual realities in which change was being enacted. There have been many unintended consequences which have militated against the realisation of the vision of quality education for all. I have also outlined some systemic and institutional responses to the crisis which I hope engender a sense of optimism and hope for the future.

It is against this backdrop that I describe my scholarly trajectory.

## My scholarly trajectory

Teachers' classroom practices and teacher professional development are the central core from which all my academic activities ray out like the spokes from the hub of a wheel. I am particularly interested in **what it taught** and **why it is taught** (curriculum) and **how it is taught and learned** (pedagogy) and **how we know** if the intended learning is taking place (assessment).

I have been involved in curriculum and pedagogy transformation processes in teacher education in the Eastern Cape, Namibia and other SADC countries, and globally through UNESCO teacher education initiatives and the International Geographical Union's [IGU] International Commission on Geography Education. Through the generous support of Rhodes University, I have been able to spend time in

classrooms in contexts as diverse as the people Republic of China, Namibia, Kenya, Atlanta and New York in the USA, Canada, Zambia, Finland, Denmark and England.

Figure 4 illustrates how my scholarship is one of praxis (Carr & Kemmis, 1995). It shows how my practice (that is, my teaching) and my knowledge construction (my research) are in a continuous dialogical relationship with theory informing practice and practice shaping theory. Figure 4 also shows some significant global forces shaping the field in which I work: access to quality education for all, globalization (skills for work in a modern economy), education for democracy (critical thinking and participation) and Education for Sustainable Development.

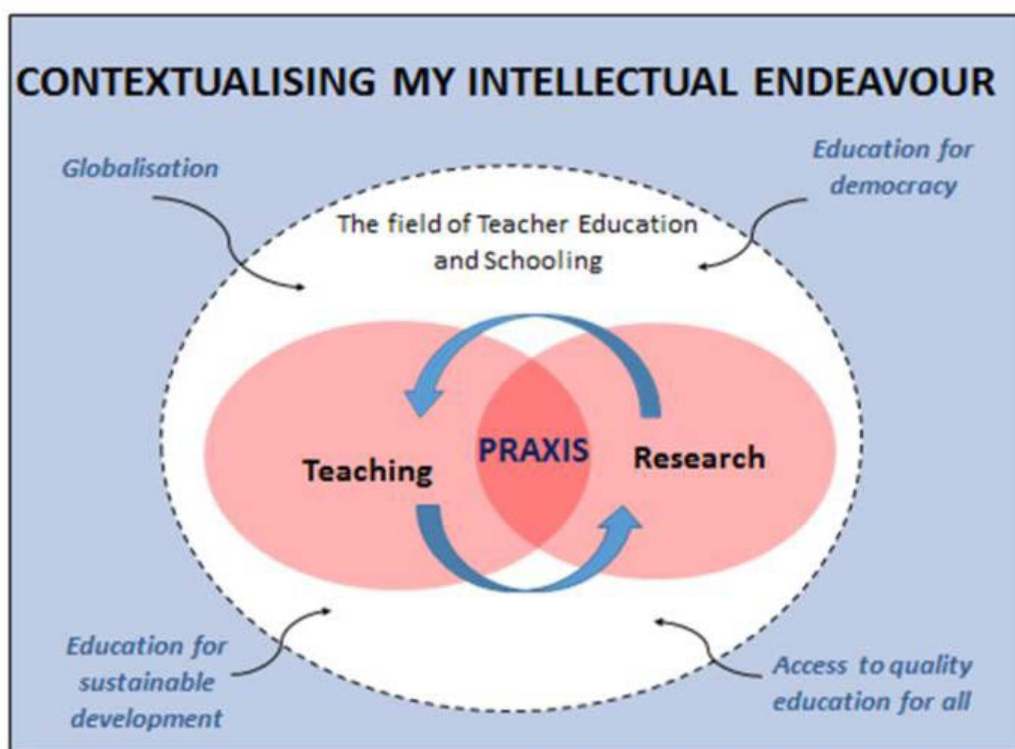


Figure 4: A heuristic for understanding my scholarly work

The pressure to modernise and become part of a global community both politically and economically meant that South Africa drew primarily on Western models for curriculum development (Lotz-Sisitka & Janse Van Rensburg, 2000:30). This is why Curriculum 2005 is referred to as an “indigenised foreigner”: it is an imported model which was developed in very different societies and hybridised for our specific needs (Harley & Parker, 1999:186). It was also the reason why South Africa, and many other sub-Saharan African countries adopted learner-centred education, a western pedagogical model seen as credible and appropriate for an effective democracy (through participation) and freedom (through critical and independent

thought) (Wilmot, 2005; Vavrus, Thomas, & Bartlett, 2011; Moon, 2013; Westbrook, Durrani, Brown, Orr, Pryor, Boddy & Salvi, 2013; OECD, 2017).

From my own research in South Africa (Wilmot, 1999, 2004, 2003, 2005; Wilmot & Van Harmelen, 2004) and my doctoral scholars' research in Lesotho, Namibia and Tanzania (Nyambe & Wilmot, 2014; Raselimo and Wilmot, 2013; Ramadan (in process)), I am aware of the challenges associated with implementing learner-centred education in Africa and the tensions that arise when the implementation process is driven by the agenda of international donor agencies.

My main contention is that any attempt to foist radical curriculum or pedagogical change on teachers will not succeed without developing change capacity which will enable teachers to engage pro-actively and productively with change (Wilmot, 2000, 2004, 2005, 2012, 2017). Experience has taught me that teacher 'buy in' is not necessarily spontaneous or voluntary. It requires advocacy, knowledge of policy (both declarative and procedural), skills development and experiential learning opportunities. A deep and critical understanding of change through critical reflexivity is a way of avoiding the dangers inherent in blindly following fashionable, or expedient, or politically correct trends (Wilmot, 2005).

There are three key themes weaving through my work: (1) implementing and researching a teacher professional development model located in critically reflexive practice, (2) modelling and mediating learner-centred pedagogy, and (3) re-orienting geography teacher education to education for sustainable development (see Figure 5 below).

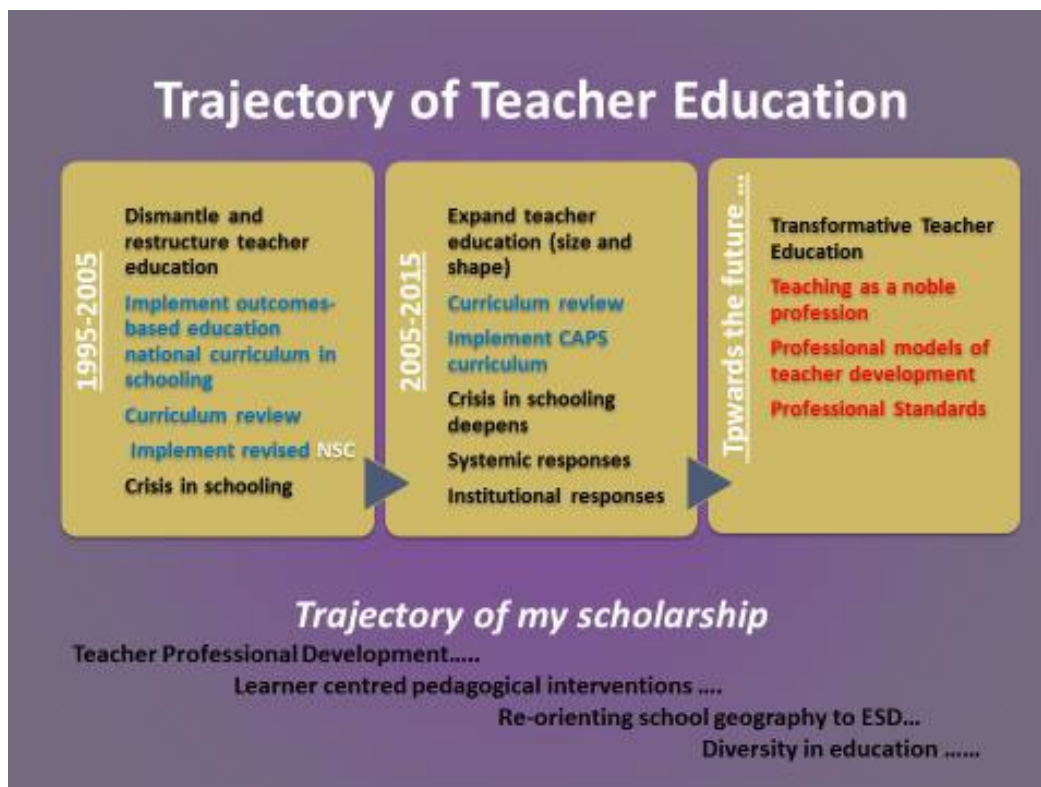


Figure 5: Trajectory of my scholarship in relation to the field of teacher education

The following two vignettes describe how these themes weave through and link my teaching and research. The first vignette describes how I implemented and researched a teacher professional development model in my PhD research.

**VIGNETTE #1: Teachers as recontextualisers**

My PhD research responded to the need to investigate how teachers made sense of and implemented Curriculum 2005’s outcomes-based education policy. Using a co-engaged action research type research design, I worked alongside the geography and history teachers at two schools on a weekly basis for two years, facilitating and mediating a curriculum change process. I then withdrew from the schools to analyse the change processes that had taken place in the school- based intervention. The findings revealed a fascinating process of teacher empowerment that had taken place (Prawat, 1991). To understand how the teacher empowerment had happened I made use of Basil Bernstein’s theorising (1990, 1996) to arrive at a suitable vantage point for the analysis.

Figure 6 (below) illustrates how I applied Bernstein’s (1990, 1996) theory of pedagogic discourse, in particular his model of the pedagogic field and ideas about the processes associated with the movement of pedagogic discourse from the field of knowledge production to the field of recontextualisation where it is appropriated and transformed by agents in the official and pedagogical

recontextualising the field to the field of reproduction where it undergoes further transformation, in relation to the South African education system (represented by the pyramid in the diagram) **and** in relation to the spiral and recursive movement of policy – from policy as intended to policy as implemented and attained.

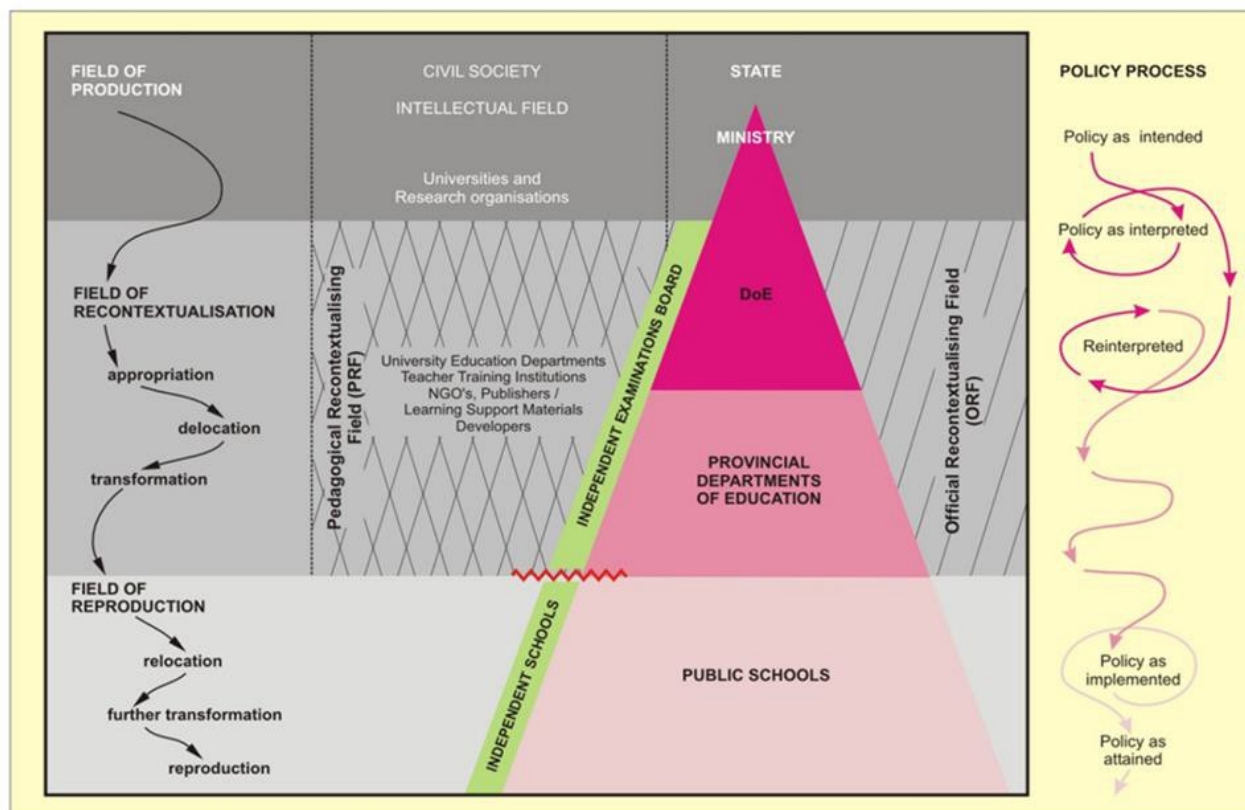


Figure 6: Heuristic for the analysis of recontextualisation process (Wilmot 2005)

Figure 6 is a heuristic tool which I used to analyse and show how the model of teacher professional development I used in the school based intervention enabled the teachers to selectively appropriate and transform C2005 policy, how they acquired the rules for recontextualisation (Bernstein 1996:107) and how they repositioned themselves as recontextualisers in the pedagogic field. The teachers’ voice was recognised and it resulted in the team being invited by the IEB to develop the Common Assessment Task for Grade 9 Social Sciences for all independent schools.

The model of teacher professional development that enabled the teachers to empower themselves epistemologically was located in critical reflexivity. This model of teacher professional development informs all my teaching as I explain in the next vignette.

My teaching and research also responds to the global socio-ecological crisis of the 21st century and the urgent need to re-orientate education to address sustainability (UNESCO, 2015e; 2016; UNESCO and



OECD, 2013, Lotz- Lotz-Sisitka, Wals, Kronlid, & McGary, 2015; Lotz-Sistika & Lupele, 2017).

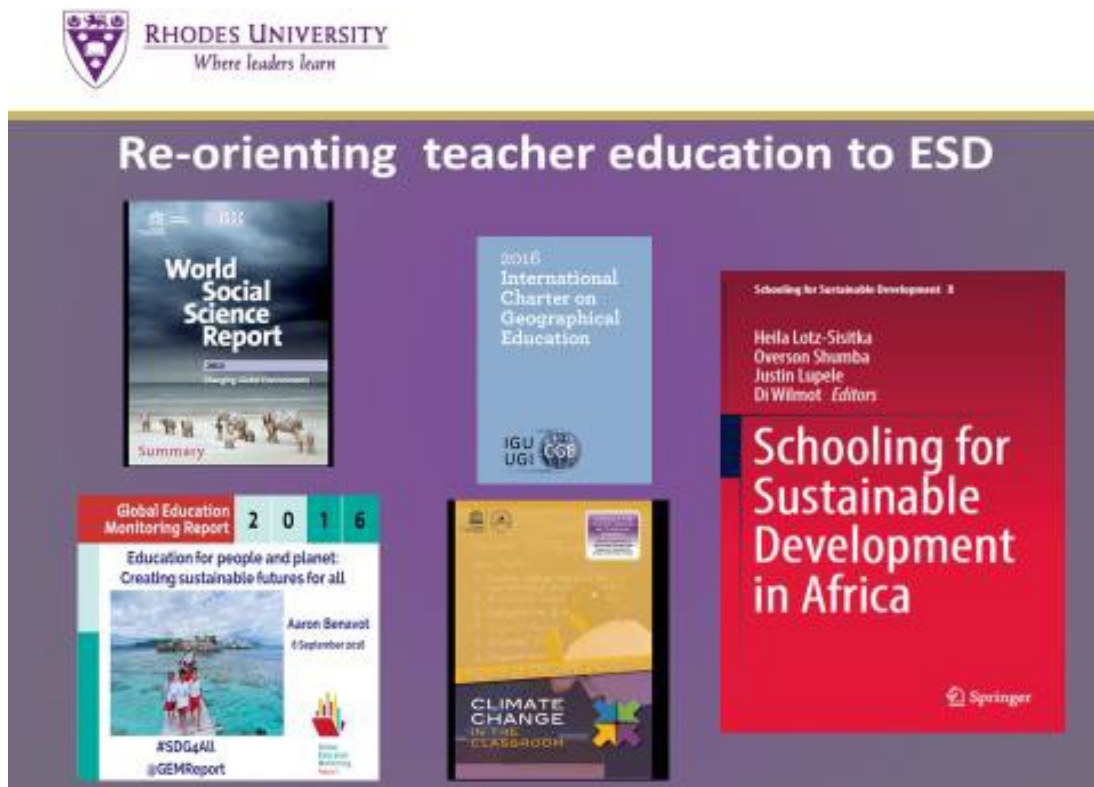


Figure 7: International frameworks and contribution to reorienting education to ESD

My practice draws on current global frameworks and critical geography education perspectives which acknowledge the important role education plays in reconstructing, transforming and empowering people to participate responsibly in their environment (Fien, 1993; Huckle, 1993; Lidstone and Williams, 2006; Walford in Fien 2011), as well as change-oriented and constructivist enquiry-based learning approaches (Rosenberg, O'Donoghue & Olvitt, 2008; Roberts, 2003, 2013). It also responds to the International Geographical Union's Commission on Geography Education's [IGU/CGE] assertion that school geography must rethink what is taught and how it is taught so that young people can acquire geographical knowledge of the complex and contested socio-ecological challenges we are facing locally and globally (IGU/CGE, 2007, 2016).

While good progress has been made in integrating environment and sustainability topics, for example, over exploitation of natural resources, food security, urbanization, poverty, and climate change are now included in school curricula, there have been many challenges enacting it at the level of the classroom (Wilmot & Dube, 2015; Dube, 2017; Raselimo 2016).



The following vignette describes how I model learner-centred pedagogy and re-orient teacher education to ESD.

## VIGNETTE #2: The woodcarvers of Namibian

Figure 8: Reorienting teacher education to ESD: A pedagogical experiment

This pedagogical experiment took place in the Namibian town of Okahandja, an important centre for woodcarvers who, operating out of informal markets located alongside arterial roads, sell their carvings to tourists passing through this nodal town (as illustrated in the map on the slide). Wood, harvested from indigenous forests in the north of Namibia, is transported to Okahandja where it is carved into a variety of wooden products.

The experiment responds to the need for school geography to “address the challenges and risks Namibians face if they do not care for and manage their natural resources” (Namibia, Ministry of Education, 2009: 5). The woodcarving industry is classified as a Small and Medium Enterprise (SME). SME are an important part of the economy, providing employment and a source of income to approximately one third of the Namibian workforce (Ogbokor & Ngeendepi, n-d). In spite of this, the woodcarving industry also encourages deforestation and unsustainable natural resource utilisation.

The experiment consisted of two phases: In the first phase the teachers and I planned and undertook an issues-based enquiry framed by the questions: What are the challenges facing the woodcarvers? And how do these link to broader environment and sustainability issues associated with SME in Namibia? Literature was reviewed and data gathered in the field through observations and interviews with the woodcarvers. Phase Two consolidated and applied the learning acquired in Phase One. It involved analysing and critically reflecting on what we had done and learned through the enquiry both pedagogically and conceptually, and the teachers planning, implementing, analysing and reflecting on an issues-based enquiry in the different school contexts in which they worked.

Evidence of learning gathered through the teachers' research reports suggests that the constructivist, experiential, active learning approach developed the teachers' cognitive abilities (as illustrated in Figure 9 below), **and** it responded to their self-demeaning feelings and lack of confidence by attending to the affective domain (Nyambe & Wilmot, 2014).

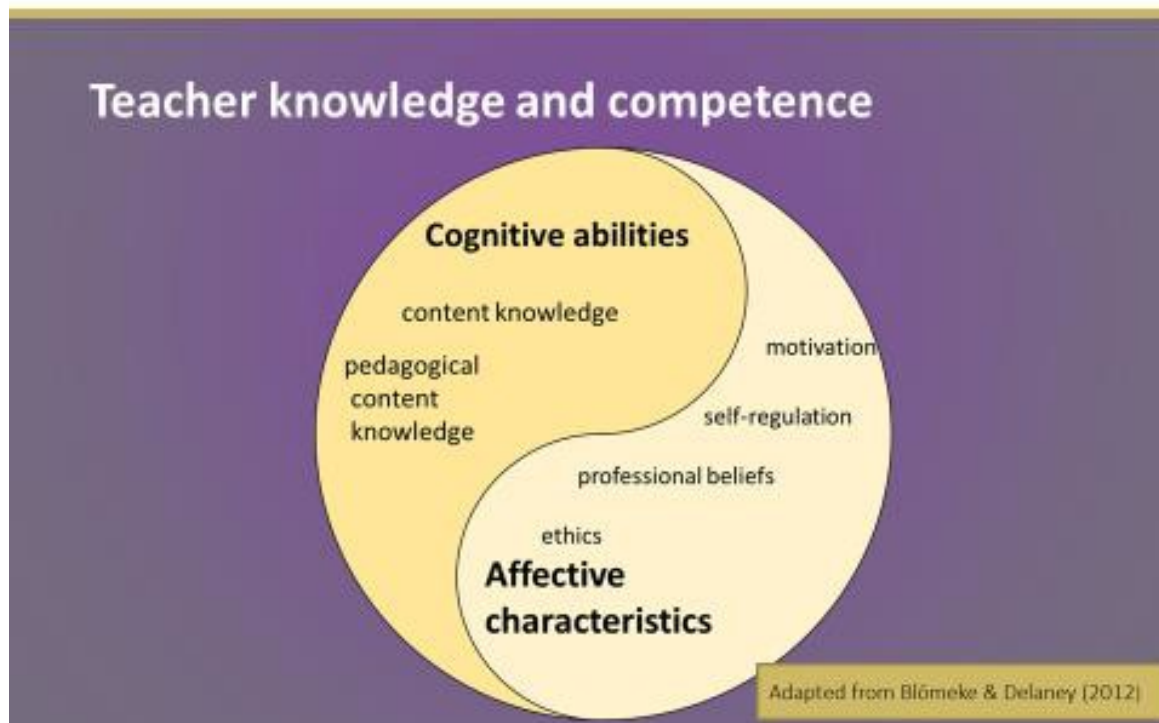


Figure 9: Teacher knowledge and competence



My **current research** responds to the need to be responsive to diversity and the need to recognise student teachers' habitus (Bourdieu, 1984); that is, their sociocultural, economic, political and

biophysical realities, when designing a curriculum and making pedagogical decisions. This is particularly important in a South African context where the massification and transformation of higher education institutions have resulted in a rapid increase in student diversity.

As part of a new course 'Introduction to the Human and Physical World' I taught earlier this year to undergraduate BEd(FP) students (many of whom are present here tonight), I investigated the concerns and contextual realities of students from diverse backgrounds, including rural environments marked by educational deprivation. The course sought to:

- elicit, build on, challenge and extend students' preconceptions and everyday experiences of the world and
- broaden and deepen their understanding of the interactions and processes taking place in and between the human and physical world and the socio-ecological challenges we face .

It also sought to provide opportunities for students to look at their worlds with fresh, critical eyes, and stimulate their curiosity and appreciation of the environment of which they are part.



'What did we do and what did we learn?': A fieldtrip to the beach and a dairy farm with pre-service Foundation Phase teachers

*Journal of Geography Education for Southern Africa, 2(1): 68-76*





Figure 10: Experiential learning in ITE

Time does not permit a detailed explanation of the curriculum and pedagogical activities other than to

give you a glimpse of the fieldwork we undertook to learn about the work of wind and waves in shaping the coastal geomorphology at Kenton and to a dairy farm to learn about where our milk comes from by observing milking and interviewing a farmer (see Figure 10).

The research has helped me to recognise and affirm the diverse lived experiences of all the students. It has enabled me to understand how students' habitus, have coloured and shaped the lenses through which they view the world. I concur with Robertson and Tani's assertion that young people's voices "...can inspire and provide the impetus needed to re-energise the way teachers, professional educators and members of the public think about teaching and learning" (2013, p.2).

The research has enabled me to re-imagine the curriculum and pedagogic approach and this has helped to ensure that all prior knowledge could be legitimated in the design and teaching of the 'Introduction to the Human and Physical World' course. The research affirms the important humanising role education should play in developing critical self-understanding and an appreciation of diversity.

I have described how my teaching and research are contextually relevant and responding to local transformative education needs while simultaneously being globally engaged.

## **Conclusion**

We have witnessed the introduction of a plethora of ambitious policies aimed at reconstructing and transforming South Africa's education system, many of which have had unintended consequences. These together with many other contextual realities have led to a vicious downward spiral in the quality of schooling for the majority of South African learners.

I have described how the persistent issue of low-quality learning and teacher education are being addressed at a systemic, institutional and personal level, and I have provided evidence of a growing momentum that is disrupting the 'vicious cycle' of schooling and helping to foster a 'virtuous' cycle.

I hope the insights I have provided deepen your understanding of the enormity and complexity of educational transformation we have been engaged in during the past 23 years. It has been fraught with contestations, uncertainties, difficulties and challenges, and yet remains vibrant, dynamic and full of opportunities for enhancement, renewal, innovation and re-imagining.

THANK YOU.

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