

Teacher Training in South Africa: Past, Present and Future

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Abstract

This paper surveys the past, present and future of teacher training in South Africa, in the context of the educational and societal reconstruction of South Africa. Before the twentieth century the bulk of the country's teachers were imported from Europe. In the twentieth century first a teacher-pupil system, then a system of teachers' training colleges and universities was used to train teachers. Towards the end of the previous political dispensation (which ended in 1994) enrolments had swollen, for social and political reasons rather than a rationally predicted demand for teachers, to the point that there was a gross oversupply of teachers by 1994. The post-1994 societal and educational reconstruction program necessitated a complete overhaul of teacher training, the details of which are discussed below. Currently an ominous supply-demand imbalance is looming in the near future. This is, by all accounts, a world wide problem, and the paper concludes with suggestions for comparative education research to address this problem.

Introduction

Any education system stands or falls by the quality of its teaching profession, and therefore, by implication, the quality of its teacher training programmes. South Africa is currently in the throes of an ambitious educational and societal reconstruction project, with education seen as one of the major instruments to bring about desired societal changes. A critical survey of teacher training in South Africa – past, present and future – is therefore timely.

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Past

Outline of South African history. Beginnings of formal education

Although traces of the earliest of human existence have been found in South Africa, formal schooling dates only from 1658, soon after the establishment in 1662 of a DEIC (Dutch East Indian Company) post, where Cape Town stands today.

The main phases of South African history are:

- a phase of colonies: 1652-1910, first Dutch, later taken over by England
- the formation of the Union of South Africa in 1910, and the subsequent history thereof
- a new socio-political dispensation which was commenced in 1994

1652-1910 Societal Context

In 1652 the DEIC decided to establish a refreshment station at the south-western tip of Africa, to supply its crews, en route between Europe and the East. In 1657 the first 'free' farmers (i.e. those who were not DEIC employees) from the Netherlands were allowed to settle. The colony spread, eventually extending to the Fish River in the east and the Orange River in the north. In 1806 the Cape Colony (as it subsequently came to be called) was taken over by England. A number of the inhabitants were disgruntled with British rule and relocated to the north of the Orange River, where they established two independent states, the Orange Free State (between the Orange and Vaal Rivers) and the Transvaal (situated between the Vaal and Limpopo Rivers). However, in 1902 both became British colonies as a result of the Boer War. In the second half of the nineteenth century, the colony of Natal (situated between the Drakensberg Mountains and the Indian Ocean) also came into being. In 1910 all four British colonies were united to form the Union of South Africa.

1652-1910: Teacher Training

Cape Colony

A typically colonial set-up, based on racial segregation characterised Cape education from a very early stage (*cf.* Coetzee, 1963:5). The

colonial government became involved in the supply of education to white children and teachers for White schools were imported from the Netherlands, and after 1810 from England. At the same time as in Europe, a pupil-teacher system developed (i.e. a monitor system, on lines similar to the schools of Lancaster and Bell in England). From the schools which thus served as centres of apprenticeship, teachers' training colleges eventually evolved. This occurred towards the end of the nineteenth century, in the major towns of Cape Town, Wellington, Grahamstown and Robertson. (Behr, 1988:154).

Education for non-White South Africans was originally provided for only by missionary organisations. From the beginning of the nineteenth century missionaries from Europe came to South Africa in large numbers, so much so that, according to Christie (1991:71), by the end of the nineteenth century, there were more missionaries in South Africa than anywhere else in the world. The typical missionary station invariably included a school (*cf.* Sheriff, 1986:14-45). To train teachers, mission schools also employed the monitor system which was later supplemented by mission teacher training colleges. The first college was established at Genadendal (a Moravian mission station) in 1838 – long before there were any White teacher training colleges.

Orange Free State

In the early years of the Orange Free State, teachers were imported from the Cape and from the Netherlands. In 1874 the pupil-teacher system, as practised in the Cape, was adopted by the Inspector-General of Education, the Rev. John Brebner (Behr, 1988:159). The legislature of the Orange Free State decided to establish a teachers' training college in Bloemfontein (the capital of the Orange Free State) in 1898, but the outbreak of the South African war in 1899 prevented this plan from being carried out until 1902.

Transvaal

In the Transvaal, as in the Orange Free State, teachers were originally drawn from the Cape Colony and from the Netherlands. In 1882 the Rev. S.J. Du Toit became Superintendent of Education. His Education Act of 1882 made provision for the establishment of an institution for the training of teachers and civil servants, to be situated in Pretoria (the Transvaal capital). The institution was opened in 1883 and existed until

1887, however, it produced negligible results as far as the training of teachers was concerned (Behr, 1988:156). In 1893 the State Model School was opened and soon after the State Girls' School. Both schools trained teachers on the lines of the pupil-teacher system. After the Transvaal became a British colony in 1902, the colonial administration was reluctant to continue importing teachers from the Netherlands. As a consequence the Pretoria Normal College (a teachers' training college) was established.

Natal

A pupil-teacher system, modelled on the British pattern, was introduced, but the system did not produce many teachers (Behr, 1988:158). Natal depended heavily on imported teachers from England and Scotland (Malherbe, 1925:195). A teachers' training college was established in 1909 in Pietermaritzburg (the Natal capital), but as was the case in Bloemfontein and Pretoria, the college catered for the White section of the population only.

1910-1994 Societal context

In May 1910, the four colonies, i.e. the Cape Colony, the Orange Free State, Transvaal and Natal, amalgamated to form the Union of South Africa. Henceforth they became the four provinces of South Africa. The 1910 constitution assigned the responsibility for (White) education to the four provincial governments.

In 1948 the National Party came to power, a key date in the history of South Africa. The new government implemented a programme of rigorous *de jure* and *de facto* racial segregation policies better known as apartheid. This was a typically coloured policy as *de facto* racial segregation had always been a characteristic of South African society. The advocates of apartheid believed that the separation of the races (and the various ethnic groupings within the Black race) would enable each grouping to develop along the lines of its own culture. For this purpose, 10 autonomous states (called homelands) were created within the borders of South Africa for the various ethnic groupings. Each was to have its own government, school system, universities, etc.

Another change was that control over Black education shifted from the churches to the state. As far as the realisation of the policy of apartheid in the field of education is concerned, one of the first steps of

the National Party, upon the assumption of power, was to appoint the Eiselen Commission of Investigation into Black education in 1949. Dr. W.W.M. Eiselen was the chairperson of the Commission. The brief of the Commission was the formulation of the principles and objectives of education for Blacks as a separate race, based on their own cultures and needs. The report of the Eiselen Commission led to the promulgation of the Act on Bantu Education of 1953 (Act no. 47 of 1953). Whereby control and responsibility for Black education shifted from the churches to the state. For this purpose a Department (Ministry) of Bantu Education was established in each of the ten homelands. Separate government departments were also established for the education of the Coloured (people of mixed racial descent) and the Indian population groups (the Indians are descendants of indentured labourers from India brought to work on the Natal sugar cane plantations in the late-nineteenth century).

1910-1994 Teacher training

Whites

The teacher-pupil system was gradually phased out and teachers colleges took over responsibility for training teachers. Eventually there were five in Cape Province (three Afrikaans-medium, one English-medium and one dual medium), five in the Transvaal (two English-medium and three Afrikaans-medium), one in the Orange Free State (Afrikaans-medium) and three in Natal (two English-medium and one Afrikaans-medium). Universities too, gradually became involved in the training of secondary school teachers. Towards the end of this phase the training of secondary school teachers at colleges was phased out.

Blacks

The pupil-teacher system for the training of Black teachers was also phased out. After 1948 teacher-training colleges mushroomed in the homelands. The establishment of these colleges were driven not only by the need for trained teachers in the enrolment boom which followed the establishment of the Ministry of Bantu Education, but also by two other factors. Teacher training was one of the few avenues of higher education and upward social mobility available to Blacks, which led to a high individual demand for teacher training education. Secondly, for the political leaders of the homelands, building colleges of education quickly

became a source of status and patronage (Parker, 2002:20). By 1981 there were 37 training colleges for Black teachers (Vos & Barnard, 1984:118), reaching a peak of 120 by 1994 (Parker, 2002:20). This led to the anomalous situation, by the early 1990s, of a steady supply of unemployed teachers, while at the same time Black schools had many unqualified or underqualified teachers who had acquired their tenured positions before the onset of the surplus of teachers. Besides colleges, the Black universities (by 1994 every homeland had a university) also trained secondary school teachers.

Coloureds

Pupil-teacher training was also phased out for coloureds and replaced by colleges of education which trained both primary and secondary school teachers. The University of the Western Cape came into being in 1961, means for the Coloured population group. It trained secondary school teachers.

Indians

The Springfield Teachers' Training College was established in 1951 in Durban, Natal. It trained primary and secondary school teachers, as did a second college, established in Laudium (Transvaal). The University of Durban-Westville was established for Indians in 1961 and trained secondary school teachers.

Present

Societal Context

In 1994 a new constitution came into operation and a new socio-political dispensation commenced. The constitution, which turned South Africa into a liberal democracy on the Western European model, and the accompanying Bill of Rights, are the most progressive in the world.

One of the main causes of the socio-political turmoil which preceded 1994, and the agitation for change, was the segregated and unequal educational arrangements of the pre-1994 era (*cf.* Christie, 1991:221-266; Mphahlele & Mminele, 1997:104-119; Nkomo, 1990:2). There were echoes of the 1954 *Brown v Topeka* supreme court ruling in the United States of America, which stated that 'separate (education) could never be

equal', and which led to school desegregation in the United States of America.

Differences in *per capita* government spending on White, Indian, Coloured and Black education were frequently cited as an example of inequity. For example, in 1993 per pupil government expenditure was R1659 for Black pupils, R2902 for Coloured pupils, R3702 for Indian pupils and R4372 for Whites (Nkabinde, 1997:44) (1993: R3.67= \$US1)

Differences in teachers' qualifications were also a cause for grievance. Christie (1991:130) cites the following figures:

Teacher Qualifications in South Africa, 1988

Highest qualification	Black %	Coloured %	Indian %	White %
University degree	5	13	43	32
Secondary school termination certificate (with or without training college qualification)	62	63	57	68
Below secondary school termination certificate (with or without training college qualification)	32	24		0

In the post-1994 societal reconstruction project, education is regarded as pivotal. Education is looked upon as an instrument for realising objectives such as economic growth, national development, the moulding of national unity, the nurturing of interracial tolerance and the creation of a democratic culture.

Education dispensation

After the 1994 elections, the baton of government was passed from the National Party to the African National Congress (ANC). The ANC formulated a new education policy, which was based upon the following four principles (*cf.* Wolhuter, 1999):

- democratization: education and training should be built on the principle of democracy, characterized by active participation by all parties, in particular teachers, pupil/students, parents and the community,
- equity: equal education opportunities for all,
- desegregation: one of the first steps that the ANC took in the field of education, for example, was to collapse all the homeland ministries of education, as well as the White, Indian and Coloured ministries of education, into one National Department of Education,
- multicultural education.
- The entire education system was to be geared towards the realisation of the potential of the entire population, with the societal objectives of economic development and the moulding of national unity as final goals. In order to accomplish this, two major reforms were to take place:
 - First, the introduction of Outcomes-Based Education, to replace the pre-1994 content-based education, which was condemned as promoting rote-learning and a culture of submissiveness
 - Second, a National Qualifications Framework would be set in place, in order to create a network of lifelong learning and training for all South Africans.

Teacher training

Institutional fabric

In 1994 there were approximately 150 public institutions (teacher training colleges and universities) providing teacher training. Prior to 1994, the supply of teachers was driven, in the main, by the amount of money the various ministries of education were willing to spend on subsidies to universities and budgets to colleges, and stipendia to students.

A number of factors forced a reconsideration of the institutional fabric of teacher training after 1994. It has been mentioned that the pre-1994 proliferation of teacher training colleges also had to do with political and societal factors and that by 1994 unemployed teachers presented a real problem. The Ministry of Education reconsidered the entire higher education landscape, with view to rationalising the

expensive duplication of facilities necessitated by pre-1994 segregation policies.

After 1994 the number of colleges diminished rapidly. By 2000 there were only 50 left. Between July 1999 and July 2000, the Minister of education declared his intention to incorporate all the colleges into universities. Now there are no longer any teacher training colleges. The sole providers of teacher training are the 24 South African universities.

A new modus of teacher training leaderships made its appearance in 2003. Secondary school graduates are employed as assistant-teachers in schools, while they study for their formal qualification (for example a university degree) by means of distance education programmes (*cf.* Wolhuter, 2003). Similar systems, have been successful in Zimbabwe, (*cf.* Dzvimbo, 1992) and Tanzania (*cf.* Wolhuter, 2004). The latter won the praise of comparative educationists such as Bray (*cf.* Bray *et al.*, 1986:163-165) and the World Bank (*cf.* Lockheed *et al.*, 1991:93), and a similar scheme is being fulfilled by Washington State University in the USA (Hayes, 2002). This idea is in line with contemporary voices increasingly calling for a bigger practical component/on-site training in teacher training (Shen, 2002:566). Schools have to pay the assistant-teachers a nominal salary out of school funds, and that limits their use to the historically affluent White schools which constitute less than 10 per cent of all South African schools.

Enrolments

In 1994 there were 200,000 student teachers. Given the stock of unemployed teachers, the Ministry of Education was increasingly reluctant to supply prospective students with stipendia. Without stipendia the majority of the population cannot afford university tuition fees. Consequently, there was a sharp drop in enrolments. By 2000, enrolments had fallen to 110,000 (Parker, 2003:21). In the same year, the overall number of teachers employed in South African schools totalled about 375,000. A further 50,000 were unemployed (Parker, 2003:20). As will be explained later, the decline in student teacher enrolments continued after 2000.

Curricula

Traditionally teacher-training programmes in South Africa were structured on the continental model (*cf.* Bergh & Soudien, 2006), whereby programmes were centered on the basic pedagogical disciplines such as the history of education, philosophy of education and educational psychology. Even before 1994 these courses were outdated when compared with teacher training developments elsewhere (*cf.* Altbach, 1991:492; Schweisfurth, 1999:94), and also condemned by progressive scholars in South Africa such as Berg (as cited by Steinberg, 1987:16): 'Education (science) is traditionally at South African universities regarded as a self-contained field of study, cut-off from the social, political and economic realities of society'. The post-1994 societal and educational context, and especially the change to Outcomes-Based education, necessitated a fundamental overhaul of the curricula of teacher training programmes.

Subsection 3(4)(f)(1) of the National Education Policy Act (Act 27 of 1996) states that the Minister shall determine national policy, including the curricular framework for teacher training programmes. Norms and standards for teacher training were subsequently declared in 1998 and revised in 2000 (Brunton, C. & Associates, 2003:A44-A59).

The norms and standards declared that teachers should be trained for the following seven roles:

- *learning facilitator*: the teacher should facilitate learning in an inspiring way, and in a way which is sensitive to the needs of pupils. The teacher should also have a thorough knowledge of the subject-content and of the principles, strategies and resources relevant to teaching within the South African context;
- *interpreter and designer of learning programmes and material*: the teacher should be able to comprehend and to interpret learning programmes, as well as to select the most appropriate textual and visual resources for a particular context;
- *leader, administrator and manager*: the teacher should be able to take decisions at the classroom level, be able to fulfill administrative duties at the classroom level, and participate in school decision making structures. Their responsibilities should be discharged in a democratic manner, and in such a way that sensitivity to changing needs and circumstances are shown;
- *learner and life long researcher*: the teacher should strive towards sustained personal, academic, vocational and professional growth,

through reflective study and research in the learning area, as well as in broader professional and educational areas, and in related fields;

- *community, civil and pastoral role*: the teacher should practise and promote a critical, committed, and ethical attitude with respect to the development of a culture of respect towards other humans which respects the stipulations of the Constitution, and which practises and advances democratic values in the school and in society. The teacher should further establish supportive relations based on a critical understanding of community development issues, with parents and with other interested people and parties;
- *assessor*: the teacher should comprehend how assessment figures in education, and should be able to incorporate it therein;
- *learning area /-subject/-phase specialist*: the teacher should be well versed with the knowledge, skills, values, principles and procedures of his/her speciality area /- subject /- phase.

In-Service Training

In a number of documents, the Ministry of Education has made it clear that the highest priority is not preservice training of teachers but the in-service upgrading and/or re-skilling of teachers (Parker, 2002:37). There are approximately 80,000 teachers not yet professionally qualified. There is also an urgent need for comprehensive re-training of teachers to implement Outcomes-Based education (Parker, 2002:37). That involves a system of in-service training for more than 300,000 teachers.

For the purposes of re-skilling, an extensive system of in-service training, of a non-formal, non-qualification bearing type has been set in place by the Ministry. For the purpose of qualifying unqualified teachers, universities have set in place distance education programmes leading to formal qualifications, accredited by the National Qualifications Framework.

The Future. The threatening severe supply-demand imbalance

By all accounts a serious teacher supply-demand imbalance is looming in South Africa. The situation can be analysed as follows.

Supply

- Current teaching force: The number of teachers in South Africa is believed to be about 360,000 (Steyn, 2006). The teaching corps is highly feminised – 80 per cent of primary school teachers and 51 per cent of secondary school teachers are female (UNESCO, 2006). The teaching force comprises twenty to twenty-five percent more females than the rest of the labour force and is becoming even more 'feminised' (Crouch, 2002:48).
- Reserve of unemployed teachers: a large pool of unemployed teachers (estimated to be about 50 000) exists (Parker, 2002:20).
- Student teachers in training: At the 24 universities there are currently 25,637 students (24,766 in the four years of the B. Ed programme, and 3 871 in the one year post-graduate certificate of education) undergoing training (Ministerial Committee for Teacher Education, 2005). These numbers, however, should be qualified by two factors.
- A significant percentage of student teachers do not enter the teaching profession upon graduation, or leave soon afterwards. Geyser & Wolhuter's (2001) research on the career paths of education graduates in South Africa found that 6 per cent have never entered the profession, and the absence of available teaching posts was by no means the only reason.
- While hard statistics do not exist, the White population group is grossly overrepresented in the student teacher population (In South Africa, the contours of socio-economic stratification run to a large extent coterminous with the racial divide, and the absence of government provided stipendia places the cost of teacher training beyond the reach of most Blacks). At present there is, among the White population group, massive emigration upon the attainment of a tertiary education qualification. While hard data does not exist, in a recently published study by Bertram *et al.* (2006:4), 27.4 per cent of final year education students signified that they intended to teach abroad, and a further 7.2 per cent said that they did not plan to teach.
- Research has indicated that in South Africa teachers are well-off in terms of salaries and working conditions, compared to the rest of the labour force. They work fewer hours per week than most of the labour force (Crouch, 2002:48), and they also have a pay advantage over other sectors of the labour force at the same qualification level (*cf.* Crouch, 2002:50-52). For example, for a Black female teacher (the most common category of teacher) with a four year tertiary

education qualification, the pay advantage (percentage) over a non-teacher is (0 signifies parity) at age: 25: 500; at age 30: 500; at age 35: 500; at age 40: 450; at age 45: 380; and at age 50: 250 (Crouch, 2002:50).

Demand

- Pupil demographics: The numbers of births in South Africa peaked in 1990. Since then it has declined every year (*cf.* Wolhuter, 2000). The 1996-census showed the population peaked at age 6 years (in that year) with 986,533; then numbers decreased as follows: 5 years: 960,160; 4 years: 935,082; 3 years: 918,951; 2 years: 892,179; 1 year: 841,165 (Statistics South Africa, 1998:12).
- Teacher attrition: In 2002 there were 364,369 teachers working in South Africa. In the same year there were 20,381 terminations of service, i.e. a 5.6 per cent attrition rate. The percentage terminations by cause were as follows: deceased: 18.3 per cent; dismissal desertion: 5.0 per cent; medical reasons: 9.2 per cent; resigned: 50.9 per cent; retirement: 13.3 per cent; severance package: 2.9 per cent; and transfer (to another ministry): 0.5 per cent (source of data: USAID Mobile Task Team on the Impact of HIV/AIDS on Education, 2005:23,24). The high deceased percentage should be viewed in the light of the high increase of HIV/AIDS in South Africa, a country with one of the highest rates of infection in the world, reported to include 21.0 per cent of the 45-49 year age group (UNESCO, 2003:302).

Balance

To encapsulate all the supply and demand factors in a neat formula is difficult, and hard data on many of the factors is not available. Two attempts at balancing the evidence are presented below, both pointing to a severe teacher shortage in the near future.

Steyn (2006), assuming an annual attrition rate of 5 per cent of practising teachers and a training course attrition rate of 10 per cent per year, which is not unrealistically high, calculates that there should be 84,913 students in training to break even with the attrition rate. There are currently 25,637 student teachers.

In a second analysis, Crouch (2002:60), basing calculations on various enrolment, demographic and HIV/AIDS infective rates projections, predicts a shortage of between 11,000 and 57,000 teachers by 2015. It should be borne in mind that neither Steyn nor Crouch have factored in

the emigration of teachers which suggests that they have underestimated the future demand for teachers.

Conclusion

Initially, Europe supplied South Africa's need for teachers. During the course of the nineteenth century a teacher-pupil system slowly came into being, to be supplanted by a system of teacher-training colleges and universities. Towards the end of the twentieth century universities became the sole providers of teacher training. The post-1994 educational and societal reconstruction necessitated a complete overhaul of teacher training. Currently a serious teacher shortage is looming in the near future. While the obvious solution to this is for the South African government to provide stipendia for student teachers, and financial support for extending a system of learnerships to the historically Black schools (a system which mimics the successful ZINTEC scheme in Zimbabwe, and which reaches back to the pupil-teacher system of the previous two centuries), the problem is far more deep seated. By all accounts a severe teacher shortage is threatening world wide. For example a Paris-based OECD think tank warns that many rich Western countries risk a shortage of teachers in coming years, as a generation of older teachers approaches retirement and they are not complemented by a crop of newly trained entrants to the profession. The OECD cites Germany and Italy, where almost half of all secondary teachers are aged above 50 (Anon. 2003:1). In the developing countries this problem is exacerbated by the general 'brain drain' – a flight of skilled labour to the developed world (*cf.* World Bank, 2002:17-19). Keeping in mind the statement made at the outset of this paper, that any education system stands or falls by its corps of teachers, then this issue of an immanent international teacher shortage should become the focus of an extensive global, comparative education study, if humanity wants, to paraphrase HG Wells, to win the race between education and catastrophe.

REFERENCES

- (Anon). 2003. OECD warns of teacher shortage. *The Egyptian Gazette* 2003.09.17:1.
Altbach, P.G. (1991). Trends in Comparative Education. *Comparative Education Review*, 35:491-507.

- Behr, A.L. 1988. *Education in South Africa: Origins, Issues and Trends:1652-1988*. Pretoria: Academica.
- Bergh, A.P. & Soudien, C. 2006. The institutionalisation of the Comparative Education discourse in South Africa in the twentieth century. *Southern African Review of Education* 12. Forthcoming.
- Bray, M.; Clarke, P.B. & Stephens, D. 1986. *Education and Society in Africa*. London: Edward Arnold.
- Christie, P. 1991. *The Right to Learn: The Struggle for Education in South Africa*. Braamfontein: Ravan Books.
- Coetzee, J.C. 1963. *Onderwys in Suid-Afrika:1652-1960*. Pretoria: J.L. van Schaik.
- Crouch, L. 2002. Turbulence or Orderly Change? Teacher Supply and Demand in South Africa: Current Status, Future Needs and the Impact of HIV/AIDS. In: Lewin, K.; Samuel, M. & Sayed, Y. (eds).. *Changing Patterns of Teacher Education in South Africa*. Sandown: Heinemann.
- Dzvimbo, P. 1992. Formulation and Implementation of Teacher Education Reforms in Zimbabwe (Paper presented at the Second Annual Conference of the Southern African Comparative and History of Education Society, Broederstroom, South Africa).
- Geysler, H.C. & Wolhuter, C.C. 2001. Career paths of education graduates and the implications thereof for higher education. *South African Journal of Higher Education*, 15(2):93-97.
- Hayes, M.T. 2002. Assessment of Field Based Teacher Education Programmes: Implications for practice. *Education* 122:581-586.
- Lockheed, M.E.; Verspoor, A.M. & Associates. 1991. *Improving Primary Education Programmes: in Developing Countries*. Washington DC:A World Bank.
- Malherbe, E.G. 1925. *Education in South Africa (1652-1922)*. Cape Town: Juta & Co. Ltd.
- Ministerial Committee for Teacher Education. 2005. *IPET Programmes at public HEIS:Current registration (August 2005) and expected completions by April 2006*. Ball Park figures. Unpublished Report.
- Mphahlele, M.C.J. & Mminele, S.P.P. 1997. *Education through the ages, book 3*. Pretoria: Kagiso-Tertiary.
- Nkabinde, Z.P. 1997. *An analysis of educational challenges in the new South Africa*. Lanham, Maryland: University Press of America.
- Nkomo, M.B. 1990. *Pedagogy of Domination: Toward a Democratic Education in South Africa*. Trenton, New Jersey: Africa World Press.
- Parker, B. 2002. Roles and Responsibilities. Institutional Landscape and Curriculum Mindscaoes: A Partial View of Teacher Education Policy in South Africa: 1990 to 2000. In: Lewin, K.; Samuel, M. & Sayed, Y. (eds).. *Changing Patterns of Teacher Education in South Africa: Policy, Practice and Prospects*. Sandown: Heineman.
- Schweisfurth, M. Resilience, resistance and responsiveness: Comparative and International Education at United Kingdom universities. In: Alexander, R.; Broadfoot, P. & Phillips, D. (eds) *Learning from Comparing: new directions in Comparative Educational research volume I: Contexts, classrooms and outcomes*. Oxford: Symposium Books.
- Shen, J. 2002. Student-teaching in the context of a school-university partnership: a case study of a student-teacher. *Education* 122:564-580.

- Sheriff, J.H. 1986. Die Evaluering van onlangse Onderwysvernuwingstrategieë in Afrikalande besuide die Sahara. Unpublished M.Ed.-dissertation, University of Stellenbosch.
- Statistics South Africa. 1998. The people of South Africa. Population Census, 1996. Age tables for South Africa and its provinces. Pretoria: Statistics South Africa.
- Steinberg, R. 1987. Comparative Education in South Africa: An irrelevant academic exercise? In: Young, D. & Burns, R. (eds). *Education at the crossroads*. Rondebosch: The School of Education, University of Cape Town.
- Steyn, H.J. 2006. The numbers (game) in teacher education. Presentation at the Deans Forum, Deans of Faculties of Education in South Africa.
- UNESCO. 2003. *Gender and Education for All: The Leap to Equality*. Paris: UNESCO.
- UNESCO. 2006. *UNESCO STATISTICA*. [HTTP:VIS.UNESCO.ORG](http://vis.unesco.org). [Date of Access:10 April 2006]
- USAID Mobile Task Team on the Impact of HIV/AIDS on Education. 2005. *Education Attrition and Mortality in South Africa*. Unpublished Report.
- Vos, A.J. & Barnard, S.S. 1984. *Comparative and International Education for Student Teachers*. Durban: Butterworths.
- Wolhuter, C.C. 1999. Sociaal-wetenschappelyke literatuur over onderwys in Zuid-Afrika: Van verzuiling tot eensgezindheid vanuit verscheidenheid. *Pedagogische Studiën* (Netherlands). 76:361-370.
- Wolhuter, C.C. 2000. Enkele implikasies van die 1996 bevolkingsensus vir die Opvoedkunde-navorsingsagenda. *Suid-Afrikaanse Tydskrif vir Opvoedkunde* 20(2):155-159.
- Wolhuter, C.C. 2003. Die beoogde stelsel van tweeledige beroepsonderwys en -opleiding: potensiaalbepaling vanuit 'n vergelykende perspektief. *South African Journal of Education* 23(2):145-151.
- Wolhuter, C.C. 2004. Education in Tanzania: Attempting to create an education system for a Sub-Saharan African country. *SA-eDuc* 1(2):72-94.
- World Bank. 2002. *Constructing Knowledge Societies: New Challenges for Tertiary Education*. Washington, D.C.: The World Bank.