

CHAPTER TWO

Educational Need and Context in South Africa

INTRODUCTION

In the previous chapter, we discussed various policies and pieces of legislation which were formulated by the ANC-led government in order to facilitate the process of educational transformation. Articulated in such legislation have been new goals of access, equity, redress, quality, efficiency, democratic governance of educational institutions, and life long learning.

The significance of policies that have been formulated to redress the imbalances is unquestionable; this chapter maps out contexts and situation within which such policies are to be implemented. The chapter will show, as the Minister of Education, Kader Asmal asserted, that:

Our system of education and training has major weaknesses and carries deadly baggage from our past. Large parts of our system are seriously dysfunctional. It will not be an exaggeration to say that there is a crisis at every level of the system.¹

It will discuss the educational needs and contexts of various sectors in the South African, education system.

To this end, the National Qualifications Framework (NQF) provides a useful mapping to locate the sectors in discussion. The following table outlines the NQF bands and levels

NQF Level	Band	Types of Qualifications	Locations of Learning
8	HIGHER EDUCATION AND TRAINING BAND	Doctorates, Further research degrees	Tertiary/Research/Professional Institutes
7		Higher Degrees, Professional Qualifications	Tertiary/Research/Professional Institutes
6		First Degrees, Higher diplomas	Universities/Technikons/Colleges/ Private/Professional Institutes
5		Diplomas, Occupational certificates	Universities/Technikons/Colleges/ Private/Professional Institutes/Workplace

¹ Asmal K, (1999). *Call to Action! Mobilising citizens to build a South African Education and Training system for the 21st Century*. Department of Education, 27 July 1999

Further Education and Training Certificate						
4	FURTHER EDUCATION AND TRAINING BAND	School/Colleges/ Trade Certificates Mix of Units		Formal High School/ Private/State Schools	Technical/ Community/ Police/ Nursing/ Private Colleges	RDP and labour market schemes/ industry Training Boards/Union/ Workplace
3		School/Colleges/ Trade Certificates Mix of Units				
2		School/Colleges/ Trade Certificates Mix of Units				
General Education and Training						
1	GENERAL EDUCATION AND TRAINING BAND	Std 7/Grd 9: (10 years)	ABET Level 4	Formal schools/ Urban/ Rural/Farm Schools	Occupation/ work based training/ RDP/ labour market schemes/ Upliftment Programmes/ Community Programmes	NGOs/ Church/ Night Schools/ ABET Programmes/ Private providers/ Industry Training Boards/ Unions/Workp lace etc.
		Std 5/Grd 7: (8 years)	ABET Level 3			
		Std 3/Grd 5: (6 years)	ABET level 2			
		Std 1/Grd 3: (4 years)	ABET Level 1			
		1 year reception				

As is evident from this table, the NQF provides a conceptual framework for understanding different education sectors in South Africa.

Despite this categorization, describing the realities of South African education is a complicated task, which is not facilitated by focusing rigidly to the NQF bands. Consequently, in this chapter we focus first on schooling, which falls primarily under the General Education and Training band and overlaps with some aspects of Further Education and Training. Following this, we will turn our attention to Further Education and Training more generally and distinguish this from Adult Basic Education and Training. Finally, we describe the current context of Higher Education in South Africa.

We also take note of the fact that describing realities of the South Africa education by focusing on the three bands runs the risk of omitting other important educational issues that cut across the education system. Possibly the most important of these currently is HIV/AIDS. Presenting the South African Declaration Against Aids at the launch of the Partnership Against AIDS, President Mbeki noted that, because HIV/AIDS is carried by human beings, 'it is in our work place, in our classrooms and our lecture halls.'² In his Call to Action

² Pamphlet on Partnership Against Aids

statement, Kader Asmal promised that the 'Ministry of Education will work alongside the Ministry of Health to ensure that the national education system plays its part to stem the epidemic.'³ Notwithstanding these statements and the commitment of government to fighting AIDS, the major question is: do our educational institutions have the capacity to not only educate the youth against HIV/AIDS but to even play the broader role as institutions of human resource development?

GENERAL EDUCATION AND TRAINING

The General Education and Training band is comprised of the following phases, Pre-School, covering Early Childhood Development; Foundation Phase (covering grades one to three), Intermediate Phase (grades four to six), and Senior Phase (grades seven to nine). These phases are generally referred to as schooling (although the schooling sector also extends into Further Education and Training from grades ten to twelve).

EARLY CHILDHOOD DEVELOPMENT (ECD)

Historically, provision of ECD has been fragmented, uncoordinated, unequal, and lacking in educational value. The principles of access, equity, and redress which have characterized the education since 1994 are also meant to bring about some changes in the way early childhood development is perceived in South Africa. As in other sectors, the government has formulated policies to facilitate the provision of ECD. The White Paper on Education and Training (March 1995) stated the government's commitment to provisioning for ECD and also emphasized the significance of the role that should be played by families and other, community support systems in transforming ECD.⁴

Strengthening the provision of ECD becomes even important as the Admissions Policy for Public Ordinary Schools, gazetted in October 1998, restricts admission at grade one to children turning seven only. While this move will save government money, it places additional responsibility on parents for pre-primary education.⁵ According to Chisholm, Motala, and Vally (1999), there are budgetary constraints at national and provincial level that prevent implementation of comprehensive Early Childhood Development provision. Nevertheless, Motala, cited in Chisholm, Motala and Vally, indicates that alternative strategies to fund ECD have been proposed, including tax concession for employers who support ECD and greater local and community responsibility.⁶

Clearly, therefore, while government has demonstrated commitment to providing comprehensive ECD, lack of resources is proving to be a threat to this.

SCHOOLING IN SOUTH AFRICA

Schooling refers to the twelve years of education taking place in schools. In terms of current arrangement, grades one to nine are compulsory, fall into the General Education and Training

³ Asmal K (1999) *op cit*

⁴ Department of Education (1995) *White Paper on Early Childhood Development*. Pretoria

⁵ Chisholm, L, Mtoala, S and Vally, S. (1999) *Review of South Africa Education 1996-1998*: For the Centre of Education Policy Development 2000+Project

⁶ *ibid.*

band, and are also classified as covering level one of the NQF. Grades ten to twelve are classified in the FET band. This section will map out briefly what is happening in South African schools. Given the nature of this report, it will highlight areas where further improvement is required, although this is not intended to undermine the many strides made in improving the quality of schooling in the country. Here, therefore, we focus on issues such as: unequal access to educational opportunities of satisfactory standard; failures of governance and management; and implementation of curriculum 2005. We will also overview teaching and learning, with specific reference to teacher qualifications, morale and motivation, availability of resources, and school funding and expenditure. Finally, we will examine the culture of teaching and learning in schools. This section touches on these issues briefly. More detailed discussion of these issues is contained in appendix one.

POLICY ENVIRONMENT

The previous chapter indicated that, in an endeavour to redress the inequalities created by the apartheid regime, several important pieces of legislation have been formulated. These include: the National Education Policy Act (1995); the South African Schools Act (1996); and Regulations for Governing Bodies of Public Schools and Norms and Standards for the Funding of Schools (1998). These pieces of legislation have been designed to revise all aspects of the schooling system, including: planning and management; governance and finance; curriculum frameworks; education and professional development of teachers; and salaries and working conditions.

Most of the educational policies and laws have been formulated to facilitate what the government committed itself to in the first educational White Paper. In this paper the government committed itself to:

- providing access to quality education;
- a commitment to developing fully the potential of South Africa's people;
- redressing the imbalances of the past;
- implementing learners centred and outcomes based approach to education and training;
- ensuring the value to life long learning; and
- making use of technology to enhance the set goals.

SCHOOL GOVERNANCE AND MANAGEMENT

Provincialization of Education

In terms of legislation introduced in 1994, provinces are now responsible for the provision of education. Provincial departments have had to develop and adopt strategies to address some of the following areas: infrastructure; financial management; education management and administration; school governance; curriculum and staff development. A major problem at this point is the degree to which provinces have moved towards the goal of assuming autonomy and authority, particularly in functions such as finance and management, and the provision of facilities and resources differs from province to province. The Western Cape is said to have taken about 90% of the functions in areas of legislation, organization, provision of books, and physical facilities. KwaZulu-Natal and Free State are said to be doing well, while the Northern Province and Northern Cape are lagging far behind.⁷

⁷Edusource *Data News*. No. 19/ December 1997. p. 5.

Disappointingly, provincialization of education has, so far, not helped to reduce inequalities that exist between historically black and white schools. Within the same provinces, some schools are adopting sophisticated management, teaching style, fundraising strategies while others are bothered by gangsterism, overcrowded classrooms, and poorly trained teachers.⁸

Another major problem that has plagued provinces with regard to financial management has been over-spending (although this problem appears to be on the decline). Subsequently the national department is contemplating giving schools and district offices responsibility for their own finances. This suggestion has been strongly countered by people such as Vally and Spreen, who argue that this would only make matters worse because schools and districts do not have the capacity and financial expertise to take on budgetary responsibilities.⁹

School Governing Bodies

In 1996, the South African Schools Act set out a new framework for the ownership, governance, and management of schools. According to the Act, school governing bodies (SGBs) should promote provision of quality education in schools, decide on mission statements, and offer support to teachers and other staff in their professional work. They may also apply to the head of the relevant provincial department to be allowed to maintain schools, raise and manage school funds, purchase books and other teaching resources, pay services for schools, and determine the extra curriculum and choice of subjects.

Apparently, most schools have elected governing bodies. Nevertheless, a report presented by the Centre for Education Policy Development (CEPD)'s Education 2000 Plus Conference in August 1999 shows that most previously disadvantaged schools are struggling to make headway in instilling democratic governance in school. According to the CEPD,

SGBs in many formerly black schools are yet to be involved in some of the key areas in which they have been given powers – language policy, admission policy, curriculum and school maintenance.¹⁰

Clearly for governing bodies to work effectively and carry out their functions properly, much still needs to be achieved in terms of training and capacity building.

Curriculum 2005

Curriculum 2005 is a new curriculum framework that aims to improve teaching and learning both in terms of teaching methods and syllabus content. This curriculum represents a shift from content-based to outcomes-based education (OBE), and it is intended to create nationally agreed outcomes and criteria for assessing the achievement of these outcomes. The national Department of Education started implementing this new curriculum framework during the first quarter of 1998. As with the implementation of SGBs, the impact of the new curriculum has been uneven across the nine provinces. Major difficulties with regard to implementing curriculum 2005 have been inadequate training of teachers, lack of material, and poor communication between departments and teachers. Nevertheless, initiatives to train teachers have been introduced by provincial department, in collaboration with non governmental organizations and the national Department. In some ways however, the

⁸ *The Teacher*, October, 1998. P.14

⁹ Vally, S. and Spreen, C-A. (1998). *Education Policy and implementation: February to May 1998*. In Quarterly Review of Education and Training in South Africa. vol. 5, No. 3 p.8

¹⁰ Kgobe P. (1999) *Transforming the South African Basic Education and Training System: A Report of Case Studies*. Presented at Education 2000 Plus Conference, Johannesburg, August 1999

implementation of this new curriculum has tended to dominate the teacher training and resources provision agenda, and it may be argued that this has resulted in neglect of other important areas.

PHYSICAL INFRASTRUCTURE IN SCHOOLS

Although government has formulated all the necessary legislation to facilitate educational transformation since 1994, it seems that there is still much to be done with regard to infrastructure. In this section, we offer a snapshot of demographic picture of school in South Africa and reflect on the material conditions in schools. Detailed statistics in this regard are presented in appendix one.

Demographic Picture

Number of Schools

With regard to number of schools we relied heavily on statistics provided by the Schools Register of Needs conducted in 1996. We acknowledge however that new schools may have been built between 1996 and 1999. Chisholm, Motala and Vally (1999) indicate, for example, that there are now about 32,000 school in South Africa.¹¹ According to the School Register of Needs conducted, there were 27,188 schools in South Africa in 1996, the majority of which are to be found in the Eastern Cape, KwaZulu Natal and the Northern Province. Approximately 70% of these are primary schools. In 1996, it was estimated that there was a shortage of about 58,000 classrooms nationally, with the Eastern Cape in need of more than 15,000 classrooms.¹² However, according to data obtained from Edusource in December 1998, the shortage of classrooms in the Eastern Cape could be as high as 21,250, a shortfall which would cost the Eastern Cape Department of Education more than R1.6 billion to cover.¹³

In order to cope with the problem of shortage of classrooms, some schools in South Africa are 'platooning' classes by running double sessions or hosting another school on its premises.¹⁴ This is reflected in the table below.

PROVINCE	NUMBER OF SCHOOLS	SCHOOLS NOT RESPONDING	SCHOOLS NOT PLATOONING	SCHOOLS PLATOONING
Eastern Cape	5945	64 : 1%	5681 : 96%	200 : 3%
Free State	2899	0 : 0%	2798 : 97%	101 : 3%
Gauteng	2437	192 : 8%	2060 : 85%	185 : 8%
KwaZulu-Natal	5259	103 : 2%	4924 : 94%	232 : 4%
Mpumalanga	1990	85 : 4%	1805 : 91%	100 : 5%
Northern Cape	531	15 : 3%	501 : 94%	15 : 3%
Northern Province	4178	1827 : 44%	2187 : 52%	164 : 4%

¹¹ Chisholm L, Motala S, and Vally S. (1999). *Review of South African Education 1996-1998*: For the Centre for Education Policy Development 2000+Project Conference August 1999

¹² *The Teacher*, September 1997. p. 3.

¹³ In 1994, The IDT School Building Trust estimated that it would cost approximately R52 000 to build one hundred classrooms -Bot M and Shindler J (1999) *Macro Indicators 1997: Update of Baseline Study: CEPD Education 2000+*, April 1999.

¹⁴ The Education Foundation, *National School Building Programme Education Data Set*. Produced for the 1996 School Survey of Needs. SAIDE database cross-tab query run on PLATOONING and PROVINCES fields with a Name count on 'schools.mdb' file

PROVINCE	NUMBER OF SCHOOLS	SCHOOLS NOT RESPONDING	SCHOOLS NOT PLATOONING	SCHOOLS PLATOONING
North West	2419	137 : 6%	2147 : 89%	135 : 6%
Western Cape	1881	64 : 3%	1686 : 90%	131 : 7%
Not Indicated	18	4 : 22%	13 : 72%	1 : 6%
Total	27557	2491 : 9%	23802 : 86%	1264 : 5%

A clearer picture of the shortage of schools and classrooms can be obtained by looking at enrolment patterns in relation to the number of schools in the nine provinces.

Learner Enrolment

It is estimated that about 400,000 new learners enter the education system every year. Research published in April 1999 shows that between 1994 and 1996 enrolment grew by 4% and between 1996 and 1998 it grew by 3%.¹⁵ These latest figures suggest that, since 1994, secondary enrolment has increased by 600,295 while primary enrolment has increased by 172,336. It is also estimated that, in 1998, the number of primary school learners was 8,144,106, showing an increase of 1% between 1996 and 1998. The estimated figure for secondary learners was 4,123,889, reflecting an increase of 6% from 1996 to 1998. Hence, by 1998, South Africa's total school population was estimated to be 12,267,996. The highest growth between 1996 and 1998 was witnessed in Kwazulu Natal, the Northern Province, and the Eastern Cape. Of South Africa's total estimated enrolment figure of close to 12.5 million, almost seven million students attend schools in Kwazulu Natal, the Eastern Cape, and the Northern Province. This is reflected in the table below.¹⁶

	1994	1996	Incr/Decr 1994-1996	1998	Incr/decr 1996-1998
<i>Primary enrolment</i>					
EC	1 828 091	1 625 066	-11	1 692 437	4%
FS	501 343	509 606	2%	505 660	-1%
GT	874 804	884 579	1%	915 058	4%
KN	1 711 275	1 863 103	9%	1 892 448	2%
MP	559 850	606 546	8%	583 777	-4%
NC	136 973	136 797	0%	138 037	1%
NP	1 195 603	1 193 289	0%	1 176 638	-1%
NW	605 722	628 200	4%	647 872	3%
WC	558 289	587 181	5%	592 178	1%
<i>Total</i>	<i>7 971 770</i>	<i>8 034 367</i>	<i>1%</i>	<i>8 144 106</i>	<i>1%</i>
Secondary Enrolment					
EC	569 277	595 537	5%	664 427	12%
FS	243 508	271 979	12%	301 293	11%
GT	505 035	528 338	5%	525 117	-1%
KN	696 873	815 191	17%	893 116	10%
MP	262 707	303 658	16%	302 592	0
NC	54 546	56 834	4%	65 547	15%
NP	677 420	702 598	4%	740 468	5%

¹⁵ Bot M and Shindler J (1999). *Macro Indicators 1997: Update of Baseline Study: CEPD Education 2000+*, April 1997

¹⁶ *Ibid*

	1994	1996	Incr/Decr 1994-1996	1998	Incr/decr 1996-1998
NW	268 128	326 662	22%	337 766	3%
WC	246 100	279 573	14%	293 563	5%
<i>Total</i>	<i>3 523 594</i>	<i>3 880 370</i>	<i>10%</i>	<i>4 123 889</i>	<i>6%</i>
Total Enrolment					
EC	2 397 368	2 220 603	-7%	2 356 865	6%
FS	744 851	781 585	5%	806 953	3%
GT	1 379 839	1 412 917	2%	1 440 175	2%
KN	2 408 148	2 678 294	11%	2 785 565	4%
MP	8 22 557	910 204	11%	886 369	-3
NC	191 339	193 631	1%	203 584	5%
NP	1 873 023	1 895 887	1%	1 917 106	1%
NW	873 850	954 862	9%	985 638	3%
WC	804 389	866 754	8%	885 740	2%
<i>Total</i>	<i>1 495 364</i>	<i>1 914 737</i>	<i>4%</i>	<i>12 267 996</i>	<i>3%</i>

*Estimate

A comparison of figures for 1994 to 1996 and 1996 to 1998 gives a clear indication of the rate of increase in learner enrolments at primary and secondary levels. While total primary school learner enrolment went up by 1% between 1996 and 1998, learner enrolment in secondary school went up by 6% in the same period. According to Bot and Shindler, enrolment by over-aged learners continues to be a problem at primary and secondary levels. Over-aged learners increased from 12% in 1995 to 13% in 1997 at primary level and from 26% to 27% at secondary level over the same period.

As in all other aspects already discussed, some provinces experience this problem more severely than others. The North West province has about 22% of primary learners who are over the age of 13, while, at secondary level, the Eastern Cape, Free State, Northern Province, and North West have between 32 and 34% learners who are over age.¹⁷

Although the ratio of primary to secondary learners has improved from 226 primary learners for every secondary learner in 1994 to 1.97 in 1998, much of the demand on schools in South Africa is at the primary level, since the majority of pupils are enrolled between grades one to seven.

Teacher-class and Teacher-pupil Ratio

The national norm for teacher-pupil ratios proposed by the national Department of Education is 40:1 in primary schools and 35:1 in secondary schools. The Department recently proposed a 'national ceiling for teacher/pupil ratios of 39:1 for the 1999 school year'.¹⁸ Recent statistics by Bot and Shindler suggest that there has been considerable improvement in teacher learner ratio since 1994.¹⁹ Although all provinces are within the national ceiling of 39:1, there are internal discrepancies that point mainly to problems of classroom shortage.

¹⁷ *ibid.*

¹⁸ *The Teacher*, October 1998, p. 3.

¹⁹ Bot M and Shindler J (1999) *Macro Indicators 1997: Update of Baseline Study: CEPD Education 2000+*, April 1999.

In the Northern Province, the shortage of classrooms suggests that teachers are likely to have classes larger than 40 students, and thus that as many as 519,000 primary and secondary pupils (37%) are in classes with up to 70 learners.²⁰ A similar situation exists in the Eastern Cape, which has a teacher-classroom ratio of 1,5:1, thus requiring teachers to teach up to 51 children each on average. Kwazulu Natal has class average of 45. These three provinces have serious classroom shortages.²¹ Teachers end up sharing classrooms, teach outside, or use non-teaching areas. Schools in Gauteng are generally in a better position than in other provinces in terms of classroom shortages. The issue of big classes resulting from shortage of classrooms is not conducive to teaching and learning. As is noted in the Medium Term Expenditure Review, in some provinces only between 70% and 80% of educators' time can be properly used for teaching and learning.²²

MATERIAL CONDITIONS

Resource Provision

In the Review of South African Education compiled by Chisholm, Motala, and Vally for the Centre for Education Policy Development 2000 + Project, the inequalities and appalling conditions within which some schools are currently operating have been summed up as follows:

While reasonably well resourced schools do exist, the vast majority of children in South Africa still continue to be educated in conditions of extreme neglect. Of the 32 000 schools in South Africa, one in four has no water within a walking distance and 11% get their water from dams and rivers. Fifty-seven percent do not have electricity and 52% have pit latrines for toilets, while 13% have no ablution facilities at all. Seventy three percent have no learning equipment and 69% no learning materials. Nationally 57 499 classes are needed; the provision of libraries is appalling, with 72% of schools have no media collections and 82% no media equipment. Between 44% and 45% of schools in the provinces of KwaZulu-Natal, Free State, Eastern Cape and Northern Cape have no sports facilities. The highest average pupil:teacher ratios are found in the Eastern Cape (51 pupils per teacher) and the Northern Province (44 pupils per teacher).²³

Problems in South African schools revolve not only around shortage of classrooms and resources, but are also affected by the quality of existing classrooms as educational spaces. The extent to which the design of the building enhances or inhibits attainment of educational outcomes is an issue that is often ignored. Substantial debates about the relationship between school buildings and infrastructure in relation to educational quality have taken place in various educational circles. These debates can be summarized as follows:

There is in many educational circles, the view that improving school building and facilities will not make a difference to school quality, and that the stuff of improving the school quality lies in classroom processes of teaching and learning. What has emerged from some studies however is that in contexts

²⁰ Joint Education Trust. (1997). *President's Education Initiative: Final Report of Phase One*, p. 4.

²¹ *ibid.*, p. 129.

²² Chisholm L, Motala S, and Vally S, (1999) *Review of South African Education 1996-1998: For the Centre for Education Policy Development 2000+Project* Conference August 1999.

²³ Chisholm L, Motala S, and Vally S, (1999) *Review of South African Education 1996-1998: For the Centre for Education Policy Development 2000+Project* Conference August 1999.

where schooling has collapsed, the condition of school buildings and facilities makes an incalculable difference to the climate of learning and teaching in a school. The morale and confidence of school goers and teachers alike is deeply influenced by the physical environment. Structural improvements and the provision of facilities and equipment to schools remain an important element in the establishment of a culture of learning and teaching in schools. While these will not automatically translate into successful schools and non-material interventions remain necessary, adequate and decent facilities do create a positive environment, affect the working conditions of staff and influence the learning environment.²⁴

Communication Facilities at Schools

Most South African schools have access to some form of postal service. According to School Register of Needs research data, 117 schools do not have postal addresses. Of these, 39 are located in the Eastern Cape and 27 in KwaZulu-Natal, while a significant percentage is in primary schools. Given that only 117 schools are without postal addresses, the challenge is not so much to provide schools with postal services but to improve the quality of that service. This is especially important given that rural communities often use schools' postal addresses as their contact postal address.

Regarding other internal communication mechanisms, the Palmer Development Group, in association with Resource Development and the University of Natal, found that the state of infrastructure at schools in their sample was as follows:

- 62% of schools have working telephones;
- 59% are electrified;
- 93% have post office boxes – confirming that most schools have access to postal service;
- 17% have computers;
- 38% have overhead projectors, 34% have radios and 28% have television and video cassettes recorders;
- 55% have staff rooms – lack of which can impede on information distribution; and
- 28% have libraries.²⁵

It is also indicated that most of the schools without adequate communication mechanisms are in rural areas. Generally, the assessment found that communication within a school itself between schools and districts and circuits offices is inadequate.

Summary

As is shown above, there are vast inequalities within the schooling system. While reasonably well-resourced schools exist, the vast majority of children in South Africa continue to be educated in conditions of extreme neglect. Current estimates suggest that redressing problems outlined in the School Register of Needs survey would require an additional R3 billion per year over the next ten years.²⁶

²⁴ Vally, S. et al . *Op cit.*

²⁵ Palmer Development Group, Resource Development Consultants and the University of Natal (1999) *Impact Assessment and Perception Audit of National Communication Directorate Materials*, 06 September 1999

²⁶ Vally, S. et al. *op cit.*

OVERVIEW OF TEACHING AND LEARNING ENVIRONMENT

In previous sections, we described the physical and infrastructural conditions in schools emphasizing tangible material deprivation and rampant inequalities in large parts of our schooling system. This has not been intended to be alarmist or to suppose defeat, but rather to focus attention critically on the context of South African schooling. As the Minister of Education emphasized in his call to action, we must recognize that large parts of our schooling system are ‘seriously dysfunctional’.²⁷ Clearly these material conditions impact on teaching and learning taking place within the system.

Schools have also tended to foster unquestioning conformity, rote learning, autocratic teaching and authoritarian management styles, syllabuses replete with racism and sexism, and antiquated forms of assessment.²⁸ In this section, we discuss teaching and learning in schools, highlighting some of the challenges facing any educational initiative aimed at South African schools. This is done with specific reference to teachers and teacher morale, culture of teaching and learning, and other factors that render the system ‘dysfunctional’.

Culture of Teaching and Learning

Policy documents, such as the *Report of the Technical Committee on the Revision of Norms and Standards for Teacher Education* (hereafter referred to as TCRNSTE), offer some description of problems faced in schools. Besides inequalities, the school system is dominated in many cases by disruptive behaviour, ranging from alienation from school work, teenage pregnancy, classroom disobedience, school boycotts and ‘stayaways’, to social crime, vandalism, gangsterism, violent behaviour, rape and drug abuse, and disrespect for teachers. All these issues create insecurity and fear, thus destroying the bases of community learning. They have considerable impact on teacher performance and student achievement. Amongst teachers, this is often reflected in a lack of commitment to the profession. Such indiscipline and lack of commitment on the part of principals, teachers, and students also demoralizes those who want to work. In some cases, this has resulted in schools not starting on time or closing earlier than expected. Such phenomena – often referred to as the ‘collapse of the culture of learning, teaching and service’ – are common in many schools, especially in urban areas.²⁹

Collapse of the culture of teaching and learning has resulted in time being lost in many schools. In his Parliamentary statement, the Minister of Education notes that ‘schools must start on time and end on time, from Monday to Friday every week of the school year’.³⁰ This call suggests that school must teach from the first to last day of each academic year. For this to be achieved, strong administrative and management mechanisms need to be put in place to ensure that student registration, class allocation, timetables and other administrative mechanisms are sorted out quickly.

²⁷ Asmal K, *op cit*

²⁸ Vally, S. et al. *Op cit*.

²⁹ Technical Committee on the Revision of Norms and Standards for Teacher Education. (1997). *Norms and standards for teacher education, training and development: Discussion Document*. Pretoria: Department of Education.

³⁰ Asmal K, *op cit*

Availability and Quality of Teaching Staff

South African education is attempting to transform in many ways, and a key element of this is transforming teacher education systems, which are central to the development of South African human resources.³¹ Quality of teaching can be affected by backlogs in teacher qualifications and subject teacher shortages. Recent information provided by Bot and Shindler seems to suggest that there has been improvement in qualifications levels among educators. Whereas, in 1990, 45% of educators were un- or under-qualified, this percentage went down to 36% in 1994 and 26% in 1998.³² Nationally, of South Africa's 360,046 educators who taught in schools in 1998, 265,189 (or 74%) were qualified, while 94,857 (26%) were not. By 1998, however, the North West province still had 36% un- or under-qualified teachers, the Eastern Cape 34%, Kwazulu Natal 31%, and the Free State 31%. The numbers of un- or under-qualified teachers in these provinces were still higher compared to provinces such as Gauteng and the Western Cape, which have 13% un- or under-qualified teachers each.³³

The quality of teaching in the classroom is, at least in part, dependent on the quality of learning and teaching to which teachers are exposed during training. Some college and university lecturers are themselves poorly prepared to be able to train teachers to act as mediators and facilitators. Teacher training in South Africa is still:

Overloaded with a proliferation of different subjects, many of which are irrelevant to the new society. Syllabuses are dated and concentrate on rote learning. There is a range of approaches and methods of learning, but the dominant approach has been authoritarian and content-based...In many colleges, students acquire only a superficial knowledge of their teaching subjects... Theory and practice have not been integrated nor do they reflect the direction of the new South Africa or the latest international advances in knowledge...Hence students [in these institutions] have been ill-prepared for contexts such as large classes, multi-cultural and multi-lingual classes and multi-grade classes in rural areas.³⁴

Likewise:

Most [teachers] are trained in the rigidities of Fundamental Pedagogics and this does little to challenge children to actively participate, many are incompetent in English but need to teach in this language.³⁵

Exceptions to this do exist and must be acknowledged,³⁶ but many South African teachers are taught to be technicians who follow orders and implement syllabuses constructed from 'above'. Education and training remains based on fundamental pedagogics, tending to be characterized by rigid, hierarchical, and authoritarian attitudes to teaching.

³¹ Technical Committee on the Revision of Norms and Standards for Teacher Education. *op cit*.

³² Bot M and Shindler J (1999) *Macro Indicators 1997: Update of Baseline Study*: CEPD Education 2000+, April 1999.

³³ *ibid*.

³⁴ Department of Education. (1997). *An agenda of possibilities. National policy on teacher supply, utilisation and development: A stakeholder response*. Pretoria: Department of Education. pp. 31-32.

³⁵ Bot (1986) and Jaff (1992) cited in Gultig, J. (1992). *Educating teachers for a 'new' South Africa: What role can distance education play?* Paper presented at the SAIDE launch conference, 7 September 1992. p. 4.

³⁶ The Top 100 Schools Survey indicated that the commitment of teachers was a major variable in the learners' success rates. *The Sunday Times*, 11 January 1998.

Teacher Morale

Recently, the issue of low morale among teachers has been the subject of concern among many people. Kader Asmal identified this as one area that requires immediate government attention.³⁷ Uncertainty and distress accompanying processes of rationalization and redeployment have demoralized many teachers, with the result that many teachers feel unsure of their futures. Often, teachers who, for a range of reasons, were not prepared to relocate to places where there were teacher shortages, had no option but to take voluntary severance packages.

It appears that the introduction of Curriculum 2005 is causing anxiety among some teachers. From the perspective of teachers, the new curriculum requires resourceful teaching to ensure that the outcomes set in the formal curriculum are reinforced and enhanced by the values exerted by the teacher's whole mode of operation. It increases teachers' responsibilities and changes their daily practice, requiring them to be intellectually resourceful, imaginative, adaptable, flexible, creative, and critical thinkers.³⁸ These are qualities that professional teachers should develop and impart to their pupils to create a culture of learning, teaching, and service.³⁹ Nevertheless, many teachers feel inadequate, insecure, and angry in the face of demands for wholesale personal and professional reinvention and the development of skills that very few individuals possess. The problem is made worse because many teachers, particularly those from African communities, went through an education system which was itself disempowering in that it did not expose teachers to the types of approaches that they are now expected to apply.

Another factor contributing to teachers' low morale, is the issues of salaries. Teacher unions have recently been at loggerheads with the government, demanding an increase 8,3% for teachers while the government was offering 6.8%.⁴⁰ **(Confirm figures)** The unions rejected government's offer and embarked on the biggest strike to be led by the Congress of South African Trade Unions (COSATU) in the democratic South Africa. As a result of the strike, the Congress of South African Students (COSAS)- which offers political representation for high school pupils – has since proposed that Matriculation examination should be postponed because most schools have not completed the syllabus or that separate examinations should be administered for schools badly affected by the strike. The Minister of Education has rejected this proposal.⁴¹

FINANCE AND EXPENDITURE IN SCHOOLING

The section on organization, governance and funding of school outlined in the second White Paper on Education (1996) suggests that the provincial budget for schools would be structured to cover for the following:

- Capital: an allocation to each province on the basis of an index of needs.
- Redress: an allocation to each province for Education Redress Fund which would channel resources for reconstruction and quality improvement to disadvantaged schools, and leverage additional funds from other sources.

³⁷ Asmal K, *op cit*

³⁸ Technical Committee on the Revision of Norms and Standards for Teacher Education. *Op cit*.

³⁹ Technical Committee on the Revision of Norms and Standards for Teacher Education. *Op cit*.

⁴⁰ *Sowetan*, 09 September 1999, p.1

⁴¹ *Sowetan*, 13 September 1999, p.3

- Core: funds for core services such as administration, quality assurance and monitoring, teacher support and planning.
- Salaries: for support staff and for teachers
- Operating costs: funds for paying for textbooks, stationery and teaching materials. **(Ref.)**

Recent figures show that provinces now spend an average of 41% of their budgets on education, as compared with 39% in 1995/1996.⁴² The major problem experienced in provinces has been over-expenditure. Reasons for this include: high real salary increases; poor budgetary and financial management; a net increase in learner enrolment; merging of educational department in some provinces; and once-off costs of voluntary severance packages. In 1996/7 and 1997/8, actual expenditure exceeded budgeted expenditure by about R6bn or between 20 and 22%.⁴³

It is worth mentioning that the biggest share of expenditure is on personnel. For 1998/99, provinces have budgeted an average of 9% for non-personnel spending. This explains why it is difficult for provinces to provide textbooks and other resources that can help improve the quality of education.

The South African Schools Act (SASA) of 1996 gives all governing bodies of public schools the responsibility of supporting their schools financially as best as they can. This can be done through raising funds or charging parents school fees. In addition to government and household expenditure on South African education, there has also been assistance in the form of corporate social investment and overseas development assistance. Business and Marketing Intelligence estimates that, in 1997, R834m was spent on education through corporate social investment. Of this, R509m was spent on formal education with R66m and R51m was allocated to primary and secondary schools respectively and R187m to tertiary institutions. R325m was spent on non-formal education, focusing on adult basic education and training, teacher development, early childhood development, mathematics, science and technology, career guidance, equipment, books, and research and development.⁴⁴

Be this as it may, with billions of Rands being spent on education, it seems that either the money is not enough to redress the imbalances created by the apartheid government or it is not being spent appropriately. A clear example may be drawn from performance of students who take mathematics up to matriculation level. Of 552,802 students who wrote matriculation examinations in 1998, only 20,256 passed higher grade mathematics.

LEARNERS WITH SPECIAL NEEDS

In its sets of policies and legislation on education and training, the government has reiterated its desire to avail resources for special education and to ensure that out-of-school youth get opportunities to be trained in useful skills. It seems that much still needs to be done in practical terms, especially when one looks at budgets allocated to special schools. According to Bot and Shindler, of the R38,6bn of provincial education expenditure, in 1997/98, 85% or

⁴² Bot M and Shindler J (1999) Macro Indicators 1997: Update of Baseline Study: CEPD Education 2000+, April 1999

⁴³ *ibid.*

⁴⁴ *ibid.*

R32,6bn was spent on public and private ordinary schools while R1,1bn or 1% was spent on special schooling.⁴⁵

According to Chisholm, Motala, and Vally, learners of compulsory schoolgoing age who have disability still experience the most exclusion from the South African schooling system. There are currently 45,517 learners enrolled in the country's 324 specialized schools, and it is estimated that 270,000 learners with disabilities are out of the formal specialized school system.⁴⁶ Although it is thought that some of these learners may be accommodated in ordinary schools or community projects, the ability of such schools or projects to provide for students with special education needs remains a matter of concern. Most schools do not have the resources or equipment to meet the needs of these students. For example, speech and hearing therapists provide an essential service to children with reading delays and hearing deficits, but 23 speech and hearing therapists are employed to work in schools in Kwazulu Natal and only two in the Eastern Cape.⁴⁷

The establishment of the National Commission on Special Needs in Education and Training (NCSNET) and the National Committee for Education Support Services (NCESS) in November 1997 was undoubtedly a good step towards meeting the needs of all learners. Among the proposals made by NCSNET and NCESS are strategies to provide barrier-free access to all centres of learning, flexible curricula, and effective programmes to make teachers more sensible to learners with special needs.⁴⁸

OUT-OF-SCHOOL YOUTH

Definitions of out-of-school youth refer to young people who have had little or no schooling, as well as young people with some educational qualifications. A CASE study conducted in 1996, defines out of school youth as:

A subgroup of youth... between ages of 15 and 30 (inclusive), not currently being engaged in studies, having not studied as far as they wanted to in their education, and expressing desire to return to some of education or training.⁴⁹

To tackle the problem of out-of-school youth, the National Youth Commission has suggested that:

Youth and community colleges shall expand on existing programmes and services to develop specific initiatives which address the needs of out-of-school young men and women. Such initiatives shall include pre-employment training, vocational training and skills development, and remedial courses to enable these young women and men to return to school.⁵⁰

The phrase, 'Street Children' is used generally to refer to children of school-going age who, for various reasons, have left their families and homes to settle on the streets of major cities.

⁴⁵ *ibid.*

⁴⁶ Chisholm L, Motala S and Vally . (1999). *Review of South African Education 1996-1998: For the Centre for Education Policy Development 2000+ Project Conference*, August 1999

⁴⁷ *ibid.*

⁴⁸ Chisholm L, Motala S and Vally S, *Review of South African Education 1996-1998: For the Centre for Education Policy Development 2000+ Project Conference*, August 1999

⁴⁹ Everatt, D. and Jennings, R (1996) *CASE Developing a Policy Framework for Out-of-School Youth in South Africa. Researched for the National Youth Development Forum and the Ministry of Education.* p.7

⁵⁰ National Youth Commission (1997) *National Youth Policy.* P.30

The number of street children under the age of 18 in South Africa is estimated at 10,000, and there are currently about 350 NGO projects that are actively involved with street children.⁵¹ Most of these children are not part of the formal schooling system.

Other groups of children of school-going age who are out of school for other reasons are children residing in farms where education is not provided, children of refugee families, and young women who have fallen pregnant and have not been able to return to school.⁵²

SUMMARY OF SCHOOLING CONTEXT

This section has shown that South Africa may have excellent policies and pieces of legislation to facilitate transformation of the education and training, but real work still needs to be done before schools can be regarded as effective centres for community learning. There are still serious administrative and management issues that require undivided attention before schools can run effectively. Many schools have not yet elected governing bodies, where they have been elected they are not yet fully operational. Resource provision in schools still reflects serious disparities between historically black and white schools and between urban and rural schools. Shortages of classrooms, which cause overcrowding in classes in some provinces, seriously affects teaching and learning. Communication with schools and between schools, districts offices, and provincial department also needs serious attention. It is also very clear the system does not yet cater fully for learners with special needs and out-of-school youth.

FURTHER EDUCATION AND TRAINING

Further Education and Training (FET) is a post-compulsory sector that precedes higher education. As the NQF levels and bands table showed above, FET includes education in senior secondary schools (grades ten to twelve), technical colleges, community colleges, youth colleges, and some training by employers at these levels. The White Paper on the Transformation of Further Education and Training (1998) sees FET as an ‘important allocator of life chances’ (Ref.). It is directed at learners who have completed General Education and Training and have either to move into Higher Education or to look for employment. As a bridge between general education and higher education or employment, FET is a vital sector for young people and adults whose formal education has been cut. The Ministry of Education sees FET as an important sector that should be as accessible as possible to adult learners who are unable to continue their education because of poverty or lack of opportunity.⁵³

The Ministry of Education envisages that the transformation of FET will address the transformation of the senior secondary school system, the technical colleges and community colleges, and the development of new, meaningful education and training opportunities for young people outside formal education.⁵⁴

⁵¹ *ibid.*

⁵² *ibid.*

⁵³ Asmal K (1999). *Call to Action! Mobilising Citizens to build a South African Education and Training system for the 21st Century*, 27 July 1999.

⁵⁴ Department of Education, Directorate: Adult Education and Planning. (1997). *A National Multi-Year Implementation Plan for Adult Education and Training: Provision and Accreditation*

Although grades ten, eleven, and twelve fall into the FET band, in terms of statistical information gathered by researchers such as Bot and Shindler and the CEPD, numbers of students in this band are still combined with learners in General Education and Training Sector. The table below, tries to show the estimated numbers of learners in Further Education and Training who are enrolled in these grades. These figures show that the majority of learners in FET are to be found in the Eastern Cape, Kwazulu Natal, and the Northern Province.

	GRADE 10	GRADE 11	GRADE12	TOTAL
Eastern Cape	139 314	110 630	92 047	341 991
Free Sate	65 908	51 423	43 769	161 100
Gauteng	110 422	94 938	73 903	279 263
KwaZulu-Natal	178 659	161 887	113 385	453 931
Mpumalanga	62 281	52 192	40 233	154 706
Northern Cape	13 267	10 168	8 241	31 676
Northern Province	135 277	131 557	141 806	408 640
North West	74 221	61 313	53 976	189 510
Western Cape	62 028	47 212	41 563	150 803
<i>Total</i>	<i>841 377</i>	<i>721 320</i>	<i>608 923</i>	<i>2 171 620</i>

*Estimates of Learners in FET by Grade and Province*⁵⁵

In most cases, statistics on material conditions and resources provision in the band, particularly relating to high school are also combined with those of General Education and Training band as they are discussed under school in South Africa.

In addition, a Profile of Provincial Youth Community Programmes (1998) shows that there are about 94 Youth Colleges in South Africa. These colleges offer courses such as 'Matric repeat', office skills, hair care, small business development, tourism, information technology and computer courses, agriculture, and adult Basic Education and Training (ABET). The colleges have among them 24,012 learners. The majority of these learners are to be found in Gauteng and the Western Cape, which have 5,200 and 4,379 learners respectively. No information regarding material conditions and resource provision in these colleges could be located.

ADULT BASIC EDUCATION AND TRAINING

The national Department of Education's Directorate for Adult Education and Training differentiates between FET and ABET as follows:

Adult Basic Education and Training is the educational foundation for further education and training and enables learners to engage in further learning and employment opportunities.⁵⁶

⁵⁵ Adapted from Bot and Shindler (1999) *op cit*

⁵⁶ Department of Education, Directorate: Adult Education and Planning. (1997). *A National Multi-Year Implementation Plan for Adult Education and Training: Provision and Accreditation..* p. 6.

On the other hand, the focus of Further Education and Training is to foster mid-level skills; lay the foundation for higher education; facilitate the transition from school to the world of work; develop well-educated autonomous citizens; and provide opportunities for continuous learning, through the articulation of education and training programmes.⁵⁷

This differentiation suggest that ABET provides a basic education foundation while FET is seen as the gateway to higher education and the world of work.

In terms of the NQF framework, ABET is placed in the first NQF level, which comprises the General Education and Training band. This is equivalent to the period of formal compulsory schooling, and is thus seen as a standard or 'benchmark' that will accommodate an ABET qualification for youth and adult learners.

The above conceptualization 'is based on the idea that adult basic education and training is the educational foundation for further education and training and enables learners to engage in further learning and employment opportunities.'⁵⁸ It is a conceptualization that aims to provide adult learners with a general education which recognizes all forms of prior learning and provides for a learner's advancement through the ABET sub-levels.

The Directorate has identified particular groups as priorities for mobilizing and enrolling learners in adult basic education and training programmes. These are:

- Disadvantaged women;
- Women with special needs;
- Disadvantaged youth;
- Youth with special needs; and
- Persons with disabilities capable of independent learning.

Despite the government's commitment to eradicating illiteracy in South Africa, it seems that much still needs to be done. In this regard, in his address of Parliament on the International Literacy Day in September this year, the Minister of Education called on all sectors to contribute to the government's programme of action to address the problem of illiteracy. According to the Sowetan, statistics of illiteracy quoted by the minister in Parliament 'boggle the mind':

He said that 3,5 million adults over the age of 16 have never attended school. A further 2,5 million have been to school but still can not read or write. This means that all in all, more than six million South Africans are in the Minister's words "shut off from the written word."⁵⁹

The major problem which the minister has picked up as a constant reference when dealing with the issue of ABET is that of budgetary constraints. In 1998, provinces such as Gauteng have cut back on ABET provision because of lack of finances. In some provinces, particularly the Northern Province, ABET practitioners are demoralized because they work for months without being paid.⁶⁰

⁵⁷ *ibid*, p. 5.

⁵⁸ *ibid*. p. 6.

⁵⁹ *Sowetan*, 09 September 1999, Literacy 'A right for all in SA' p. 2.

⁶⁰ This issues was raised by ABET Practitioners at Glencowie who are currently register for the Certificate in ABET with UNISA. They were interviewed for a Learner Support Research Project run by SAIDE.

The challenges surrounding delivery, access, and meeting the needs of identified target groupings include an emphasis on: developing the capacity of adults to understand the complex reality in which they live; creating critical and participative citizens; opening up and laying the foundations for further education and training; and improving the quality of life.

Related to the issue of delivery and access, is that of meeting the needs of those individuals within the spectrum of adult education. However, within this spectrum, there are different categories of individuals with diverse sets of needs. Different organizations and interest groups have employed different categories to describe the target audience. The ABET Directorate, for example, describes the target audience as being 'extremely broad in character and can be disaggregated by age, sex age group, employment status and province (to name just some of the variables).

A contextualized and multi-faceted understanding, which recognizes the link between education, training, and social and economic development, has replaced the traditional understanding of adult education. The traditional notion of adult education as 'literacy' and 'numeracy' has given way to one which places adult education within other social and economic development strategies. It is clear that the needs of youth and adults are diverse, and can only be met through a variety of delivery systems and partnerships. The complexity of the adult and youth educational terrain calls for effective cooperation, coordination, and partnerships between the state, public, private and community sectors.

HIGHER EDUCATION

In the NQF levels and bands shown above, higher education and training encompasses levels five, six, seven, and eight, which cater for diplomas, degrees, higher degrees, and doctoral and research studies. Like other areas, higher education in South Africa has been characterized by racial inequalities and serious disparities in resources provision. At the same time, 'like schools, our universities, technikons and colleges must become vibrant centres for community and cultural life.' This is an important pronouncement because these institutions need to play an important role in human resources development and to be 'the engine for the creation of new knowledge and innovation and critical discourse.'⁶¹

As was mentioned in the previous chapter, government has passed legislation to transform higher education, to facilitate equity and access. The equity and development imperatives and the need for transformation of the higher education system become more pronounced when one looks at statistical overviews of higher education in terms of student access and success, staffing, and research output. This section will show that, although policies and pieces of legislation have been formulated to facilitate transformation of higher education, there are still some serious challenges.

INEQUALITIES IN STUDENT ACCESS AND SUCCESS

Despite a significant increase in the enrolment figures of black and white students between 1986 and 1993, the student composition of universities and technikons still reflects the legacy

⁶¹ Asmal K, (1999). *Call to Action: Mobilising citizens to build a South African education and training system for the 21st Century*, 27 July 1999

of apartheid. Between 1986 and 1993, African enrolments at universities and technikons increased at an average annual rate of 14%, compared to annual growth of 0.4% for whites. This increase was even greater in Historically Black Institutions (HBIs), most of which lack the necessary resources to cope adequately with the influx of students with unfavorable school backgrounds and thus particular educational needs.⁶²

Increases in the total number of African students enrolled did not lead to a significant shift in the balance of participation rates between the population groups. Figures in the National Commission on Higher Education (NCHE)'s Framework for Transformation show that, even though the participation rate of Africans more than doubled between 1986 and 1992, it still represented one-sixth of that of whites in 1992. Racial inequalities also exist across disciplines and are more prevalent in senior levels of study. The concentration of African and coloured student enrolments at HBIs and distance education institutions had a significant impact on the type and levels of programmes to which black students had access. The NCHE report shows that, in 1993, only about 2% of students following courses in the natural sciences were registered at Historically Black Universities (HBUs). The ratio of natural science enrolments in the historically white institutions (HWIs) to those of contact HBIs was nearly 4:1.⁶³ Not only is South Africa's output in natural sciences, engineering, and technology low by international standards, but about 80% of South Africa's present human resources in these fields are white. These distortions, a direct result of the failure of the educational system, led to a severe shortage of graduates in natural sciences, engineering, and technology, considered to be the intellectual engine of economic development. There has also been unevenness of student outputs of South Africa's higher education system, which reflect the inequalities and ineffectiveness in higher education.⁶⁴

STAFFING INEQUALITIES

Inequalities in higher education exist not only in terms of access and programmes, but are also reflected in staff composition. The NCHE report provides the racial distribution of staff in higher education for 1993, which show that 87% of academic (research/teaching) staff in technikons and universities were white. The higher education sector is highly stratified in terms of race and gender. The trend is that the greater the prestige, status, and influence particular positions have, the greater the extent to which they are dominated by whites and males. Positions which have a lower status and prestige, and which wield little influence, tend to be filled primarily by blacks and women. Disparities in overall employment structure of universities and technikons increase with rank. In 1990, for example, 92% of the executive/administrative management members of universities were white.⁶⁵

Gender inequalities among higher education staff become most apparent when the distribution of permanent research and teaching staff is considered. The NCHE report shows that, in 1993, 68% of the total academic staff employed were men compared to 32% women. These disparities increase with rank, and the absence of women is most conspicuous at senior levels. In 1992, across all universities, 26% of all senior lecturers, 15% of associate professors, and only 6% of professors were women. It is argued in the NCHE report that there are broad reasons why the staff position of blacks and women should be of great concern to

⁶² See NCHE Report (1996), *A Framework for Transformation*, Pretoria, pp. 32-33.

⁶³ *ibid.*, p. 32.

⁶⁴ *ibid.* p. 34.

⁶⁵ *ibid.* p. 38.

higher education institutions. The first reason is a moral one, following from the demands of equity. The second reason is of a strategic nature. In a world where talent is spread evenly among people, no organization can thrive when it relies only on a small scale segment of its potential skills.⁶⁶

RESEARCH AND RESEARCH OUTPUTS

The research outputs of the higher education sector shows that South Africa's research productivity is concentrated in historically white institutions. In 1993, this group of universities employed 51% of the permanently appointed academic staff in the higher education sector, but produced 83% of research articles and 81% of all masters and doctors graduates.⁶⁷ An additional concern related to effectiveness of research in South Africa is that it is not sufficiently connected to the needs of society. The Green and draft White Papers on Science and Technology discuss the extent to which South African research has failed to keep up with the research demands of technological progress and to meet the social and economic needs of the majority of the population.

ENROLMENT PATTERNS IN TECHNIKONS AND UNIVERSITIES BETWEEN 1995 AND 1997.

Since 1994, there has been an interesting shift in enrolment in technikons and universities. It appears that technikons have been attracting more students than universities. Although enrolment in technikons had dropped by 3.6% from 1995 to 1996, it rose by 14% in 1997. On the other hand, in the period between 1996 and 1997, enrolment in universities dropped by 2.3%.⁶⁸ This means that the drop of 2.3% in university enrolments coincided with an increase of 14% in technikon enrolments. These figures confirm a shift in the pattern of student enrolments in higher education.

OUTPUTS IN HIGHER EDUCATION. DEGREES, DIPLOMAS AND CERTIFICATES AWARDED BY UNIVERSITIES AND TECHNIKONS (1990 AND 1995)

The South African Survey further shows that in 1995 a total of 57,126 degrees, diplomas, and certificates were awarded by universities in South Africa. Degrees awarded in education comprised the single largest proportion (28%) followed by commerce (14%).⁶⁹ The survey shows a minimal output of universities in the fields of engineering and sciences. For example, although the number of engineering degrees, diplomas, and certificates awarded increased by 11% from 1990 to 1995, they comprised only 4% and 3% of the total numbers of degrees, diplomas and certificates awarded in those years. Similarly, degrees, diplomas, and certificates awarded in mathematics increased by 16% from 1990 to 1995 but constituted only between 1% and 2% of all degrees awarded in those years. The number of degrees, diplomas, and certificates awarded in life and physical sciences dropped from 5% of all

⁶⁶ *ibid.* p. 38.

⁶⁷ *ibid.* p. 39.

⁶⁸ South African Institute of Race Relations, (1998). *South Africa Survey (1997/98)*, SAIRR, Johannesburg, p. 167.

⁶⁹ *ibid.*, p. 130.

degrees in 1990 to 4% in 1995. Over the same period, the number of degrees, diplomas, and certificates awarded in public administration increased by 49%.⁷⁰

The South African Survey data shows that, in 1995, a total of 19,665 degrees, diplomas, and certificates were awarded by technikons in South Africa. This represented a 74% increase in the period 1990 to 1995.⁷¹ Whilst, in universities, education was the most popular field with more graduates, in technikons public administration qualifications were the single most popular in 1995, comprising 28% of all degrees, diplomas and certificates awarded in that year.⁷²

By comparison, degrees, diplomas and certificates awarded in engineering by technikons were the third most popular in 1995 (15% of the total), but had dropped from 26% of the total of 1990. The increase in output in commerce and education more than doubled between 1990 and 1995, while computer science increased by 30%.⁷³

The challenge facing the restructuring of higher education is to relate outputs of these institutions to the human resource needs of the country. The output of universities and technikons' in science and engineering has to increase if South Africa is to be internationally competitive and to take its rightful place within the global economy.

RECENT DEVELOPMENTS IN HIGHER EDUCATION (1998 TO 1999)

This section will concentrate on developments in higher education since the passing of the Higher Education Act. It will concentrate on funding, enrolment patterns and access. The new policy framework for funding of higher education, which will be based on approval of institutional plans, will be faced by the debt crisis within higher education. In the period 1998 to 1999, high levels of debt have been a feature of the majority of historically black universities whose student recruitment pool is amongst the most deprived in the country. By mid-February 1999, student debt in all universities stood at R500 million.⁷⁴ Attempts to collect outstanding fees have been met with resistance.

The Education Policy Unit's Quarterly Review provide the following picture of the debts incurred by universities as at the beginning of the 1999 academic year:⁷⁵

UNIVERSITY	AMOUNT OWED
The North	R120 million
Zululand	R61.5 million
Western Cape	R45 million
Venda	R16 million
Transkei	R15 million
Duran Westville	R13 million
Fort Hare	R10 million

⁷⁰ *Ibid*, p. 130.

⁷¹ *Ibid*, p. 130.

⁷² *Ibid*, pp. 128-129.

⁷³ *Ibid*, pp. 129-130.

⁷⁴ *Business Day*, (14/01/199).

⁷⁵ See Chisholm L, and Petersen T (1999) *Quarterly Review of Education and Training in South Africa*, (December – March 1999) Education Policy Unit, University of the Witwatersrand, p.13.

UNIVERSITY	AMOUNT OWED
North West	R9 million
Total	289.5 million

Debt at Historically Black Universities

UNIVERSITY	AMOUNT OWED
Cape Town	R23 million
Witwatersrand	R18 million
Pretoria	R18 million
Free State	R9 million
Natal	R6 million
Potchefstroom	R6 million
Port Elizabeth	R3.8 million
Stellenbosch	R3.5 million
Rand Afrikaanse	R2 million
Total	89.3 million

Debts at Historically White Universities

This level of debt is a cause for concern for government, as it places constraints on government plans to improve access to and to improve higher education. In response, the Departments of Education and Finance have established a joint committee to undertake a detailed financial review of the higher education sector. The Wits Education Policy Unit Quarterly Review notes that, despite massive donor contributions to this sector there has been little improvement. United States Agency for International Development (USAID) alone, through the Negro College Fund, has allocated R125 million to historically black universities over the next five years and a European Union library project alone amounts to some R160 million. The Review argues that in part much of this funding get ploughed back to European and American nationals and in part universities do not have the capacity to absorb, manage, and use the funding effectively.⁷⁶

This period has also been characterized by falling numbers of enrolled students at many universities. Furthermore, fees continued to escalate and government has been unable to provide additional financial assistance to students. According to the Star, enrolments have fallen in most black universities, as is reflected in the table below:⁷⁷

UNIVERSITY	1998 ENROLMENT	1999 ENROLMENT
Fort Hare	5 000	2 000
North	9 000	5000
Zululand	6 600	5 300
North West	11 203	6 011
Durban Westville	8 859	7 000
Vista ⁷⁸	23 000	23 000
<i>Total</i>	<i>63 662</i>	<i>48 311</i>

⁷⁶ *ibid.* p. 13.

⁷⁷ *Star*(22/2/1999).

⁷⁸ *Sowetan Education Supplement* (26/03/1999)

It is further reported that, in 1998, whilst enrolments were apparently down at seven of the ten historically black universities, student numbers rose at seven of the formerly white universities. The EPU review rightly argues that this is a striking change from earlier years when black universities had to turn students away and when overcrowding was a major problem at these universities. The reasons for this decline has been attributed to the clamp-down by universities on non-paying students, a shrinking pool of matriculants with university exemption, competition from private higher education institutions, and a movement by students away from universities and technikons.⁷⁹ Whilst enrolments at Vista University appear to have remained static during 1998/99, they have fallen drastically over the past four years from 35 000 in 1995 to the present number as reflected above.⁸⁰ In accounting for this drop in enrolments, Mr Maher, the spokesperson of Vista University put it that:

today there are a variety of institutions to choose from. Universities are also challenged by the inevitable competition from technikons, private colleges and distance education institutions.⁸¹

Some believe that, within universities, beneficiaries are private and Afrikaans-speaking universities, which have expanded distance education programmes and whose enrolments of black students within the short-term will increase sharply. For example, the University of Pretoria has enrolled 26,000 distance education students in 1998 and 30,000 in 1999, over and above their 26,000 residential students who receive tuition mainly through traditional face-to-face modes of delivery. Given that the majority of satellite centres of this institution for the distance education programmes are in areas mainly populated by black people, it could be assumed that the most distance education students are black students.

CONCLUSION

Notwithstanding the excellent policies and pieces of legislation formulated to facilitate the process of transformation as discussed in Chapter One, this chapter has raised a number of issues confirming many well-understood problems in our education and training system. Rampant inequalities between black and white schools, urban and rural schools is clear evidence that the legacy of past injustices still haunts many parts of the system. As we have seen, these inequalities are not to be found in schools only, as institutions of higher learning have also experienced the same problem. The apartheid government deliberately shunned historically black institutions while purposefully channelling resources to historically white institutions to ensure that these institutions provided the best education and training for the white minority. The government has put in place mechanisms to normalize the situation by providing equal funding, but this could deteriorate into a futile exercise as long as appropriate managerial and administrative mechanisms are not in place to ensure that schools and higher institutions of learning become efficient and effective centres for community learning.

Using this contextual backdrop as a guide, it is now possible to reflect in detail on the possibilities presented by different technologies in helping to solve some of the above problems, as well as many others that space has presented us from mentioning. In this regard, it is necessary to reflect on the range of technologies available, their potential educational applications, and the existing extent of their penetration in South Africa.

⁷⁹ Chisholm, L, and Petersen, T, (1999) op.cit. p. 13.

⁸⁰ *Sowetan Education Supplement* (26/03/1999)

⁸¹ *Sowetan Education Supplement* (26/03/1999)

