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**Renewal of the Educational System:  
A Study in Qwaqwa,  
Republic of South Africa.**

**Lekhotla Mafisa**

**A Thesis  
in  
The Department  
of  
Education**

**Presented in Partial Fulfillment of the Requirements  
for the Degree of Master of Arts at  
Concordia University  
Montreal, Quebec, Canada**

**June, 1993**

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## ABSTRACT

**Renewal of the Educational System:  
A Study in Qwaqwa,  
Republic of South Africa.**

**Lekhotla Mafisa**

This research was conducted in Qwaqwa, a self-governing territory in the Republic of South Africa. A sample of 139 children in Sub A (Grade 1) classes from five schools was randomly selected for the study. The study sought to establish whether there was a significant difference between the performance of first Grade with or without kindergarten experience. The children were evaluated on achievement scores in language, writing math, self-esteem and mental maturity. The socio-economic background of the children was examined to establish if it had a significant effect on their performance. The Early Childhood Environmental Rating Scale was used to determine whether the kindergartens which the children had attended were based on the theory and practice of accepted principles of early childhood education. Interviews were conducted with teachers, principals of the pupils in the research, as well as government officials.

The results did not confirm the hypotheses that children who had kindergarten experience would achieve higher

to those children who had not. However, the results confirmed the hypothesis that children whose kindergarten classes received higher Early Childhood Environmental Rating scores also achieved higher scores in achievement, self-esteem and mental maturity. The results established significant effects of achievement, self-esteem, and mental maturity scores according to school. The results also indicated a significant effect of mental maturity according to socio-economic status.

The most important finding of the research is that a number of factors play a role in determining the effectiveness of kindergartens.

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This research demanded far too much sacrifice from my family. My wife Ntsutle, and my children, Thabo and Thato, have provided me with tremendous strength and inspiration.

I wholeheartedly dedicate this work to my unlettered mother, Tlalane Mafisa, without whose support I could not have achieved this level.

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## CHAPTER 1

Over many years the education system for Blacks in South Africa has been a cause for concern. By means of government decrees the education of Blacks was separated from that of the Whites and purposefully made inferior. Per capita government spending for White and Black students is based on race. As the following figures will demonstrate, South Africa's classification of race is manipulated to favor certain racial groups. Africans in particular, as it can be seen, receive a raw deal from the government.

The subsidy per child (Fataar, 1992) is:

White	R 3 600 p.a.
Indian	R 2 700 p.a.
Colored	R 2 100 p. a.
Africans	R 900 p.a.

Many commissions to investigate the problems in the South African education system such as the Eisellen Commission, the De Lange Commission, as well as the Education Renewal Strategy have been set up by the government. The government either ignores the recommendations of these commissions, like its refusal to form a single ministry of education suggested by the De Lange Commission, or makes half-hearted promises to implement some of the recommendations. There have been consistent endeavors by many institutions and individuals to envisage a change in the present

education system but the White South African government has not shown the desire to dismantle apartheid education in its entirety. What has been demonstrated is the government policy to reform apartheid education in order to offset the growing criticism of apartheid education (Cooper, Motala, Shindler, McGaul, & Ratsomo, 1983).

A myth has been created that before the arrival of the Whites in South Africa, Africans did not have an education system. Contrary to this thinking, Africans had a purposeful education which was characterized by "ubuntu" (humanness) as its philosophy. Ubuntu depicts humanity as a supreme measure of creation. The education that was provided in an African environment stressed human values in every aspect of life and competitive measures which depict individual ability were discouraged (Gordon, 1980).

There are several educational needs which are to be fulfilled if Black education is to be brought to parity with that of the education of the Whites. To try and address all of the needs at the same time will not be feasible. This research will endeavor to present pre-school education as a strategy that could improve the education system for the Africans in South Africa.

There is no general government policy which regulates preschool education for Blacks. Many centres for early childhood education are privately established and there is no control by the government to ensure the quality as well as the relevance of the education provided. The importance of preschool education is underscored by the Education Renewal Strategy Document (Garbers,

1992) which states that the value of pre-primary education in improving performance of children is universally acknowledged. Preschool education is thus considered relevant in addressing educational problems of disadvantaged learners in the Black community. These learners are not usually school ready when they reach the appropriate school entry age. A reasonable suggestion is that an extra year should be incorporated in the existing elementary education, and serve as a bridging year before Grade 1 (Garbers, 1992).

#### Technical Terms used in this paper

Blacks includes disadvantaged groups in South Africa, the Africans, the Indians and the Coloreds (people of mixed race).

Apartheid education: The education provided in South Africa is divided according to race. Every racial group administers its own education system. What is wrong with apartheid education is that quality education has been provided for Whites while Blacks have received a lower quality of education.

Bantu Education: An education system that was promulgated by government decree to make the education of the Blacks separate from that of the Whites.

Whites: People of European descent who live in South Africa.

Boer: A term used to refer to Afrikaner or a White South African of Dutch origin.

Xhosa: One of the African ethnic groups in South Africa.

Baaskap: a term which is used to refer to the superiority of Whites.

R: Rands- the monetary unit in South Africa.

## SURVEY OF THE LITERATURE

### Historical and philosophical setting

The settlement of the Whites in South Africa since 1652 has had a profound impact on the political, economic and social structures of the indigenous people of South Africa. Through military conquest and political manipulation, White settlers subjugated Africans and colonized them. The new social and political order that emerged in the wake of White settlement was more than an imposition: Africans were made to believe that their system of government was not only outdated but banal. However, it is important to point out that African traditional systems had served them well for centuries. It allowed for both democratic expression and sharing of executive power which have been derided and denigrated to such an extent that many people believe that Africans had no history prior to the coming of White settlers (Davidson, 1992). A nation whose culture is submerged into another does not only lose its pride, but also its identity. The serious repercussion of this is the feeling of inferiority which affected many African people.

The colonial system introduced a foreign education system which among other things, destroyed the existing indigenous

education system. Before White rule, Africans had their own system of education which served their needs. While their education system was not formal in the western sense, or did not take the form of structures in the three R's or confinement within four walls, it was a system that inculcated a sense of patriotism, respect for custom and practice, a sense of sharing and caring, devoid of the self-interest that tears society apart and sets one person against the other. Pre-colonial education, infused with African traditional ideals, fostered the social, cultural, artistic, religious as well as the recreational values of the ethnic groups. The concept of schooling and education, or learning of skills, social and cultural norms was not separated from other spheres of life. Education was viewed in a broad sense as a process of developing the individual, mentally, socially and morally. Its ultimate objective was to produce an able and responsible adult devoted to the stabilization and harmonization of society. Communal living was preferred over individualism. Virtues of duty, respect, bravery and honesty were valued, while laxity, imprudence, cowardice and dishonesty were shunned. The education of boys and girls was separated in that girls were educated in the ideals of motherhood and in skills appropriate to their gender, while boys were educated to master ideals of fatherhood, industry and the art of war to ensure the security of the country. Regardless of what contemporary western critics may say of this indigenous African education system, for Africans, it was utilitarian and practical: boys were involved in hunting expeditions while girls were engaged in household duties (Marah, 1989).

Under the Dutch East Indian Company, African education was initially, or to a large extent, left under missionary control. It was offered as a charity to those Africans who were thought to be "deserving." There was no coherent or standardized education policy. The aim of missionary education was to convert Blacks to Christianity rather than to educate them. This approach makes it apparent that the hallmark of the missionary education was to "tame" Africans and make them less suspicious of the motives of the Colonial regime, which were to exploit their human as well as their material resources. The education provided was to a large extent "bookish" as its aim was to produce Africans to serve in the colonial civil administration and to help in religious matters. Careers based on technical and commercial curricula were not open to Africans (Dickie-Clack, 1971).

The basis of missionary education can be exemplified through the policy of Sir George Grey in 1854 (British administration at the Cape) whose primary task was to introduce institutions of civil character suited to produce westernized Xhosas, who would be gradually won to "civilization" and Christianity. African political and social institutions were changed by means of decrees. Reflecting their paternalistic attitude toward Africans, the Union (South African) government enacted laws from 1910 not only to undermine and deny Blacks their individual rights but also to reduce their status as people. Blacks were denied the right to own land, to exercise franchise and uphold citizenship in the land of their birth. Thus, Blacks could not exercise the same rights as Whites and the



same law had different interpretations for Blacks and Whites (Schreuder, 1979). For example, while Whites could teach in Black institutions, Blacks were prevented from teaching in White institutions by means of the Color Bar Act.

Eventually a clash of interest occurred amongst the missionaries: were they to perpetuate the objectives of the Colonial regime or the interest of the African rulers (Keto 1992)? In view of the fact that the White settlers had more to offer in terms of material benefits and protection against the Africans, most missionaries paid their allegiance to them. However, other missionaries pursued their humanitarian objectives of conversion and philanthropy in a meaningful way. They contributed to the transcription of Black languages into written form. Some missionaries also served as interpreters as well as advisers to African rulers in their relations with Afrikaners. John Philip (a missionary) did much to warn the Xhosas of the plundering Boer (Afrikaner) (Giliomere & Schlemmer, 1986).

The education of the Africans under the Dutch East Indian Company and the one which was provided by the missionaries were similar. Basically religious in nature, their aim was to prepare the Africans to render labor for colonialists. They conceived that educated Africans would be less hostile to the White settlers.

The education provided to the Africans under the Dutch East Indian Company was of a piecemeal nature. At first, the education of the African and White children was integrated but measures to separate Africans from White education came in 1676 when the

Church Council expressed concern over integrated schools. The basis for segregated schooling was fear of competition between Africans and Whites on the job market. African education became inferior to that of the Whites. While there was steady progress in the education of Africans in the British colonies, the Cape, and Natal, the education of the Africans was slower to develop in the two Boer Republics, the Transvaal and the Orange Free State. Africans were used mainly for farming in the Boers' Republics, and education was to a large extent provided by the missionaries. It was only in 1910 that control of the education of Africans was placed under the four provincial authorities which assumed inspection of mission schools and established some of their own. These provincial authorities (Cape, Natal, Free State and Transvaal) levied taxes on African education and as a result, few Africans benefited from the schools which were provided. Decisive steps to take absolute control of the education of the Africans by the Union government started in 1948, and by 1954 the Bantu Education Act was passed upon which the present system of African education is based (Gerber and Newman, 1980).

Under the new government in 1948, Black and White education systems were separated. A separate education system for Blacks was based upon the principle of trusteeship, inequality and segregation. The principle of trusteeship means that the Afrikaners took upon themselves the responsibility of determining the needs of Blacks in the area of education as well as political participation. Blacks were to receive not only a different type of education from

that of Whites but also an inferior one. This was the beginning of the "apartheid education" (or what is commonly known as Bantu education ) enacted in 1953. The apartheid philosophy was in line with the creation of the Homelands policy in which Blacks were to be separated from Whites and kept within tribal structures (Hirson, 1979).

In his speech for justifying Bantu education, Dr. Verwoerd emphasized that the previous (missionary education) education system "served to create a class of educated and semi-educated persons without corresponding national development. This is a class which has learned that it is above its own people and feels that its spiritual, economic and political home is among the civilized community of South Africa, namely the Europeans and feels frustrated that its wishes have not been complied with" (Verwoerd, 1954 p.77). Thus Dr. Verwoerd proposed an education system for Blacks which would keep them in perpetual servitude. It is clear that Bantu education was conceived as a result of the threat posed by Africans in the struggle for jobs and in the administration of the country. Support for this statement is seen in the words of Mr. Maree, the then Minister of Bantu Education, when he said in 1959 that the aim of Bantu Education was to keep "the Bantu child a Bantu child" (Horrell, 1964). This education system was modeled on the Calvinistic religious philosophy of predestination. The argument for a separate education for Blacks was based on this Calvinistic ethos which received approval from Christian National Education (the ideology which dominated the so-called national character of

South African education system). It was based on the assumption of a natural division of ethnic groups and the idea that the primary objective of the South African education system should be to maintain these separate identities. Therefore, it was presented as a legitimate argument that Blacks were destined to be 'hewers of wood and drawers of water' (Giliomere & Schlemmer, 1989). This policy of control of education was extended to universities in 1959, which effectively barred Black students from attending White universities. By means of this Act, Blacks were to study in specified universities, which were ethnically based. For example, a Sotho-speaking African could not be admitted to a Zulu university. As a result of the ethnic background of these universities, they were looked down upon and disparagingly called "bush universities" (Adam, 1971). However, it is important to note that leaders such as Desmond Tutu, Nelson Mandela, Joshua Nkomo and Robert Mugabe were educated in such institutions. One could reasonably say that the aim of Bantu education was to cultivate an obedient worker and produce a reservoir of cheap labor. The importance of culture and tradition became the corner stone of apartheid education, in that the principle of culture was twisted to presuppose that because Blacks were different from Whites, their political and educational structures should be dissimilar to that of Whites. While every effort was made to increase the quality and resources of the White institutions, no provision was made to do the same for Black schools. This created a situation where White institutions provided better opportunities for self-development than Black schools.

However, "apartheid" education served to produce pseudo intellectuals who were to accept the status quo and become tools in the extension of "baaskap"(White hegemony) (Cross & Chisholm, Collins,1990).

There was great disparity in the content and financing of education for Africans. Education for Africans was terribly under-funded and as a result it became systematically inferior. School buildings were poorly constructed and libraries and laboratories were insufficiently equipped. The situation was further exacerbated by the high number of under-qualified teachers. These teachers became more authoritative and autocratic as they failed in most cases to properly address the questions and problems of students. As a result, rote-learning became a dominant characteristic of the students' way of learning. The failure rate at the secondary level increased pathetically and few students were able to reach universities and technikons. (the latter are institutions of high quality technical training that are equivalent to university education). The pass rate for matriculation (entrance qualification for university education) has been shrinking from 1976 until the present. The pass rate is usually between 40% and 55% of this number less than 10% qualify for university education. The pass rate at matric (grade 12) level is extremely important since the matriculation examination is nationally set and measures are taken that its standard should be the same for all population groups. In African schools, this examination provides the most discouragement for students. As a result of the chronic unrest that dominates Black

schools, there are fewer days spent in the classrooms and the nationally set examination does not take into account these lost days, in which students did not cover the syllabi (Mokoena, 1992). For example in 1985, there were 29 White students at university per 1000 members of the White population, while at the same time, there were 2.9 Black students at university per 1000 members of population. The deplorable state of Black education has not changed despite much publicized reform measures by the De Klerk government. The future is bleak (Nkomo 1990).

To show discontent for the education provided for Africans, a number of revolts were staged by African students. African student resistance against Bantu education reached its climax in 1976 in what has become known as the Soweto revolt, which plunged the whole country into unprecedented turmoil. This revolt was primarily directed against the intended compulsory use of Afrikaans as the medium of instruction. However, the strike was, in effect, a reaction against forced compliance to the country's unjust laws. It was a visible demonstration against White oppressive rule. Young people marched and committed acts of arson by burning schools in many major urban areas, in villages and in the Bantustans (Homelands). As a result of this revolt, schools were closed, examinations were boycotted and some teachers resigned. There has not been stability in the Black education system since 1976. Since then, students have insisted on having a voice in any major decision that would involve African education. This is to redress the situation in which for many years Black people were not involved in the decisions affecting

their education. A situation of anarchy reigns in some instances where students want to enforce their decisions on school administration ( Hirson, 1979 ).

#### History of Preschool Education in the Republic of South Africa

To understand the present organization of preschool education in RSA, one has but to examine its historical development. Preschool education, just as education in general, is structured according to racial groups. The development of preschool education will thus be presented in the context of preschool education for Whites and Blacks. Blacks is a term which includes Africans, Coloreds, and Indians. In the RSA, Blacks are politically divided into these separate communities, with each community managing its own affairs and institutions such as schools.

Preschool education for Whites in RSA was established in 1930 when two nursery health classes were started in the slum areas of Johannesburg, pioneered by the National Council of Women and the Wesleyan church (Reilly & Hofmeyer, 1983). The reason for their establishment was to provide education and care for underprivileged children. Middle-class parents soon realized the value of preschool education, and took decisive steps in the establishment of preschool facilities for their children. The private sector contributed generously to the development of preschool education in the White section until 1969 when pre-primary education for Whites became the responsibility of the provincial administration. While nursery schools provided educational support

for preschoolers, crèches offered custodial care to children of working mothers. Since 1969 there has been a tremendous expansion of preschool education for Whites due to contributions of associations such as the Nursery School Association of South Africa, Transvaal Vereniging van Kleuteropvoeding (Transvaal Association of Preschool Education) and Kaapse Vereniging van Kleuteropvoeding. The Nursery School Association provides useful guidelines for quality preschool education over quantity.

In some sense, the extent to which preschool teachers are qualified determines the quality of preschool education. In the White sector, there are adequate facilities for preschool teacher education while there are sparse facilities for Blacks (Coloreds and Indians). Training courses for pre-primary teachers in the White section of the population have been started at provincial colleges in all four provinces. Varying from province to province, there is a four-year or a three-year course for pre-primary teachers. According to the Department of Statistics, in publicly funded preschool centres for Whites, 90,8% of the teachers are qualified while only 54.16% of the teachers in privately subsidized preschools were qualified (Reilly & Hofmeyer, 1983).

The establishment of preschool facilities for Blacks came as a result of local welfare societies and private voluntary organizations. Before the implementation of the Bantu Education Act of 1953, minimal state subsidy was granted for preschool facilities (Reilly & Hofmeyer, 1983). The subsidy was provided by the Department of Social and Welfare and was payable to crèches in



the form of a maintenance subsidy of ninepence per Black child a day, and a subsidy not exceeding 2 500 pounds paid on the basis of a pound from the state and a pound from the parent. The grant was exclusively given to children of bona fide working mothers or work-seeking mothers. From their inception preschool facilities for Blacks had strong welfare and custodial orientation, which has not changed significantly over the years. The majority of institutions offering preschool are to a large extent doing little more than providing shelter and meals for the children.

The Anglican Mission was the first private initiative to establish educational grounding for Africans when it opened a nursery school in Sophiatown. This nursery school, together with five others which were later established by the Anglican Mission, was used as a centre for training Black assistants until 1958 when this training ceased in order to comply with the stipulations of the Bantu Education Act of 1953. Nursery school assistants who trained in these centers under the guidance of qualified teachers found employment in the crèches run by the welfare organizations. To a limited extent, they were able to inculcate educational principles and methods into places of care for Black children. Subsequently the state subsidy for preschool education for Blacks was withdrawn, and no fully fledged nursery schools have been built for Africans, except in Qwaqwa where there are three nursery schools (Reilly & Hofmeyer, 1983).

In 1987, a government sponsored preschool enrichment program for Africans was made available at a selected number of

schools. Its aim was to increase children's school readiness and seek to identify children's potential in order to provide them with meaningful guidance. This extra class of enrichment program before formal education also serves as a kindergarten class. (Liddell,1987).

The Department of Health and Welfare has established three day care centres and four others were under construction in Qwaqwa, which are being administered independently from those falling under the Department of Education. These institutions provide child-care for a full day. Their primary purpose is to provide custodial care for children and their secondary objective is to provide educational orientation for the children.

The centres have been constructed as a result of a request from the community. The government in Qwaqwa provided funding for the construction of the buildings of these centres. The lower income and the higher income parents pay R20 and R40 fee per a child respectively according to their income category. The government has undertaken to pay the staff of these centres. A supervisor for all day care centres and assistants in each centre are in charge of the care and the education of the children. They have been provided with a crash course on childhood education. Each centre is administered through a committee which has been formed of representatives from the community in which a day care is situated.

The number of qualified pre-primary/nursery schools teachers in Black, Colored and Indian preschool centers is extremely low and is a critical factor in the provision of quality education. In the Black

section, there are few centres whose teaching staff have professional qualifications in pre-primary education. Consequently, distribution of qualified teachers is spotty in most Black preschool centers (Reilly & Homeyer, 1983).

The University of South Africa offers a Higher Diploma in Pre-primary Education (H. D. E.) as well as B. Ed. degree with specialization in pre-primary education for all population groups. University education for Whites consists of a four-year Bachelor of Primary Education (Pre-primary). In 1963, in answer to requests forwarded by various representatives for Africans, the Department of Bantu Education responded by re-introducing training courses for preschool teachers which had been withdrawn. These courses were initiated at the Jabulani Technical College (1969), at the Bafokeng near Rustenburg, Umlazi in Durban (1970) and Mdantsani in Ceiskei (1974). A two-year Pre-primary teachers' diploma at these centres has been phased out in order to introduce an advanced three-year post matriculation diploma. However, very few colleges falling under the auspices of the Department of Education and Training offer this pre-primary teachers' diploma. Hence the number of teachers who train for preschool education is too low to meet the national requirements for Africans. Coloreds and Indian are also embarking on a three-year college diploma in pre-primary education (Reilly & Homeyer, 1983).

The development of preschool education in the Indian community has been somewhat slow. As a result of limited grants for pre-primary education, there has been little progress in the

establishment of properly organized pre-primary schools. However, there is a growing awareness amongst the Indian people about the merits of preschool education. Their focus is on developing this phase of education (Reilly & Hofmeyer, 1983).

The early establishment of preschool care and education for Colored children was undertaken by welfare organizations, private education committees, church organizations and, in some instances by local authorities. The provincial Education Department provided minimal subsidies to a limited number of nursery schools while small grants were offered to crèches by the Department of Health and Welfare (Reilly & Hofmeyer, 1983).

In the year 1952, the Athlone Group for Nursery Education came into being through the initiative of the private sector. This Athlone Group for Coloreds later developed into the Athlone Nursery School and Training in 1958 and was instrumental in the development of preschool education in the Cape. In 1964, the Colored Education Department took control of education for Coloreds and subsequently increased subsidy for preschool education. An Early Learning Centre (ELC) was established in 1972 by a private group in order to upgrade preschool education for the children of low-income people among the Coloreds. The activities of this Centre led to the formation of the Early Learning Research Unit in 1979, whose task was to assist in the development of ELC projects and to promote early education throughout Southern Africa. Preschool education in the Colored section assumed considerable importance with the passing of the Colored Persons Education amendment Act, No 15 of

1980 by the Department of Colored Affairs. The Act aimed at the establishment, construction and maintenance of nursery schools (Reilly & Hofmeyer, 1983).

As Liddell and Kemp (1991) point out, there is an ethnic bias in the provision of preschool education in South Africa. There are an estimated 6.3 million children under six years of age in South Africa. Of this, the overall majority (83%) are Black (Colored and Indian), with only 7.5% being White. And yet, the number of White children in registered preschools is almost twice that of their Black counterparts. Approximately 100 000 of 5.2 million Black children under six years old are in preschools (2%) while the corresponding figure of White children is 165 000 (33%) of the total of 500 000 (Lategan, 1990).

One questions the basis or justification for ethnic bias in the provision of preschool education in RSA, which is reflected in state spending for preschoolers. Government subsidy per annum for White preschool children is US \$520 per child while it is only US \$ 33 per Black child. This unfair subsidy system perpetuates the superiority of Whites over Blacks in education (Atmore & Birsteker, 1990).

It is interesting to speculate that the reason for upgrading preschool education for White children, while doing little for Blacks, is a cunning way to ensure quality education for White children while at the same time making access to preschool education difficult for Blacks. Thus preschool education serves as a base to provide Whites with more skills and a better education which will

make them more competitive on the job market than their Black counterparts (Liddell & Kemp,1992) .

### Education system in the Republic of South Africa (RSA).

The present education system in South Africa is provided on a racial basis. There are five main departments of education: the Department of National Education which caters to the needs of education for all racial groups, Departments of Education and Culture for Whites, for Africans, for Coloreds and for Indians. The Department of Education for Africans is further divided into ten Homelands' departments of education. Each Homeland administers its education system on a regional basis, although all self-governing Homelands still fall within the Department of Education and Training which caters to education of Africans. The education system for every population group is centralized, and within each department of education there is a degree of decentralization. For example, the education of the Whites falls within the Department of Own Affairs which has centralized control of education but at the same time, every province administers its education to a certain degree. In 1988, pupil-teacher ratios which excludes the Homelands were as follows: (Cooper, Schidler, & McGaul, 1989)

Africans	40 to 1
Coloreds	25 to 1
Indians	20 to 1
Whites	16 to 1

The structure of education in South Africa can be depicted as follows:

Department of National Education for all population groups

Department of Education and Culture for Whites

Department of Education and Culture for Coloreds

Department of Education and Culture for Indians

Department of Education and Training for Blacks:

Ciskei

Transkei

Gazankulu

KaNgwane

Kwandebele

Kwazulu

Lebowa

Qwaqwa

Venda

Bophuthatswana

Transkei, Bophuthatswana, Venda and Ciskei (TBVC states) have become independent states although in many ways they are still part of South Africa. Qwaqwa is a self-governing territory within the Republic of South Africa. It is situated in the northeastern part of the Orange Free State. Its Chief minister is Dr. T. K. Mopeli and it has Phuthaditjhaba as its capital. The land area is 655 km and according to the 1985 census the population was estimated at 232, 226 with a density of 345 persons /km. It has a

mainly homogeneous South Sotho population. The official languages are South Sotho, Afrikaans and English.

The territory has 142 schools with a student population of 114, 251, whilst the number of classrooms is 3, 367. It has three colleges of education, one university, as well as three technical institutions. The teacher to student ratio is: Pre-primary 1:28, primary 1:35, and secondary 1:36. Qwaqwa is divided into four school regions, called "circuits" for administrative purposes. These circuits are north, south, west and central. Each circuit has a director, inspectors and a clerical staff which administers its own schools. The Minister as well as the Secretary of Education are answerable to the government of Qwaqwa for all matters which relate to education.

At present the Department of Education in Qwaqwa is engaged in establishing kindergarten schools, but there is intense argument over the effectiveness of these schools and the role they play in benefiting the children. Parents and teachers, as well as those who are in a position of authority, have a keen interest in finding out the effectiveness of these schools. The Department of Education and Training (for Africans) is also looking at the feasibility of setting up a school-readiness program which is called "Bridging Period" for five year olds at its schools (Vijoen, 1989). The aim of this school-readiness program is to increase the level of achievement of preschool children and prepare them for elementary education. The research in this area will be very important for the educational system of Qwaqwa. Qwaqwa is ideal for this type of research for it



has taken the lead in African schools in the Republic of South Africa in establishing a one year kindergarten program at its schools before children start with Sub A ( Grade 1).

### Critique of the education system.

#### 1). Curricular issues

It would be unfair to judge the merits and demerits of pre-colonial education on a western education model. However, it is also important to stress that the weakness in African education is that it demanded conformity, not individuality, nor critical thinking or creativity. It called for unequivocal respect for authority even though the authority might be questionable (Marah, 1989).

The inferior nature of the present Black education system results in serious problems. Most employers in the private sector refuse to recognize certificates for technical training offered at African institutions. They complain about the incompetence of certificate holders. Thus Blacks are at a great disadvantage in the competition for jobs and occupational advancement. Their training is not at the same standard of performance as their White counterparts. Black students are lacking in the area of "official" languages, namely English and Afrikaans, mathematics, and science. To compound the issue further, in most cases, Blacks are offered courses of shorter duration than those of their counterparts, and, their certificates are worthless in securing jobs, creating an additional expense to Blacks, who after supposedly completing their education, have to go back to school to upgrade their training.

Therefore, the technical training for Africans is less effective (Bot & Schlemmer, 1986).

There are several reasons why education for Africans proves to be less effective. In most cases teachers are under-qualified or forced to teach subjects about which they have little knowledge. It is common for a teacher who has not passed standard 10 (Grade 12) to offer subjects at this level. The reason for this is that teachers who had not completed their high-school education were allowed to train as primary (elementary) teachers and some were then promoted to secondary school teaching. In other cases, university graduates who had not qualified as teachers were offered teaching jobs because of the serious shortage of qualified teachers.

In Africans' schools, teachers who have insufficient knowledge of subject-matter spurn questioning by students. Therefore, critical thinking as well as creativity among African students is suppressed. In addition, teachers who plan their lessons through question and answer methods are often regarded by students as not well prepared. Regurgitation of factual material rather than understanding is a hallmark of learning. The result of this less effective teaching is a high failure rate at Africans' schools, particularly at matric level (Molobi, 1988).

This pathetic state of affairs creates a laissez-faire attitude among students, and disillusionment with schooling results in a high drop-out rate. In trying to force students to memorize content, teachers resort to excessive use of corporal punishment. In reaction to this, students become more and more militant and take the law

into their own hands in the running of the schools. As students develop aggressive attitudes, it becomes common for them to demand "pass one, pass all." Pass one pass all is a demand made by students that all students must be passed even though some of have failed. School administration is thus undermined. To preserve their jobs, insecure and threatened teachers, as well as some principals, pass undeserving students because students unceremoniously expel teachers they do not want at schools. Thus bad teachers and bad principals in some cases are regarded as "good" because of the high pass rate in their schools. Inspectors of schools blame teachers for this state of affairs and issue directives which are difficult to carry out under these circumstances. Good teachers as well as good principals are not protected by senior officials against rioting students. Inspectors of schools have become so unpopular that at present, they have been systematically "banned " by teachers from inspecting their schools. Teachers have used this opportunity to get rid of the hated inspectors. Most of the inspectors in Black schools are not promoted on the grounds of merit, but because they conform to departmental policy. They accept departmental directives without question, and carry out instructions in a most unscrupulous and relentless manner. They do not bother to understand the difficult situation under which African teachers work, and they demand that teachers do their work in a normal way, even though the situation of some schools is such that performing certain duties such as the marking of the attendance registers or conducting regular lessons is difficult. The Department of Education has lost

control over Black education. Teachers and students are now exploiting the situation for their different motives in an attempt to undermine the authority of the Department of Education. The relationship between teacher associations and the Department of Education is strained. It has, indeed, become difficult for the two parties to normalize the situation that has gone out of control at schools. The education of the Africans is in a lamentable state (Molobi, 1988).

## 2). Political and Social factors

The deliberate attempt by the state to prescribe a separate education system for Blacks implies in the broad sense that Blacks are denied the right to enjoy their country's resources. The aim of education is to make them "second class citizens." It is acceptable that an education system should have a cultural content. On the other hand, this does not justify separate education systems for every cultural group in South Africa. Blacks are in fact, culturally, economically and politically tied to other population groups in South Africa, and it is a contradiction to this reality to single them out for a separate education system. The essence of Apartheid education is to over-emphasize the importance of tradition in a cunning way, with the aim of justifying separate education. Any society takes pride in the education system it has formulated by being part of its planning, structuring and implementation. However, RSA educational policy always comes from "above." Lack of participation by the Africans in the education system resulted in

widespread disapproval of the system. Teachers do not feel an obligation to the system; at the same time students find it to be illegitimate (Molobi, 1988).

The objective of the education system that is imposed upon Africans has been well stated by the inspector of Bantu education, Mr. A. A. Allison. He said in 1960 that "we must however, strive to develop the scholar as an individual so that he will fit into his own society. No useful purpose will be served if we give a pupil secondary education which will make a dissatisfied member of the community, because he has been educated above the level of his fellow men' (Allison, 1960, p. 5). This statement shows how paternalistic was the attitude of White policy-makers over the Blacks. Apartheid education was forced upon Blacks, no provision was ever made to seek the views of Blacks. The present awful situation in Black schools has its roots in an apartheid education system (Hirson, 1979). This is a system of education which has robbed many bright children of the opportunity of realizing their potential, and these young people, as Mokoena (1992, p.32) states, "lie idle with no real prospects for the future." Sheila Sisulu (1992) regrettably highlights the plight of these children with the pathetic label of the "lost generation"

In the past, Black education was not compulsory nor was it free. The fact that the majority of Blacks provided cheap labor for mining and industry meant that few parents could afford to educate their children. As a matter of fact, education became a privilege and not a right. On the other hand, it offered little in terms of benefits

for those who went through it. In the work situation, it was difficult to distinguish an educated worker from an uneducated one. The educated African elite alienated themselves from their communities. More often, the educated class of Africans sided with the ruling governing for survival, and were thus associated with White oppressors. Furthermore, the educational system provided theoretical knowledge, which did little to improve the occupational position of a Black person. There was little practical value in this kind of education. As a result, many African students were less motivated to go to schools which offered few opportunities to prepare them for the practical and technological demands of modern society. This led to disillusionment and lowered self-esteem. As a result of such frustration, young people joined protest movements and made the country ungovernable by campaigning against the school system and its administrators. Instead of becoming centres of learning, schools became centres of agitation not only for improvement in education but also for political changes for the better. The failure rate deepened the frustration of those who were determined to attend schools., and demand for "liberation now and education later" became more acute (Mokoena, 992). The seriousness of this situation was underscored by Qoboza (1986) in his comment that " if it is true that a people's wealth is its children, then South Africa is bitterly, tragically poor,...For we have turned our children into a generation of fighters, battle-hardened soldiers who will never know the carefree joy of childhood"...

The situation in African universities is also affected by a geographical factor. African universities with the exception of the recently established Vista university, are located far away from urban centers. It is not unreasonable to suppose that Vista university was built in response to the intense criticism that Africans did not have universities in the urban areas. Thus, one wonders whether Vista was built only to serve the needs of the Africans or to serve the purposes of apartheid education. In contrast, White universities are conveniently located in or near major cities. The location of African universities presents some problems. First, the majority of African students finish their high school education without having seen a university, and thus their desire for university education is not kindled. Second, inter-campus interaction and coordination of curricular issues is almost impossible. Third, students and faculty members are isolated from the wider social interactions that usually take place in major urban areas. As Gwala (1988) rightly states, there is little sensitivity towards the need for research in the surrounding areas of these institutions.

The fact that parents as well as youth have become disillusioned about the education system has lowered the morale for education. This has resulted in a terrible decline in educational standards. In reality, people have lost faith in the Black schooling system. This led to the emergence of many dubious "fly by night" private schools that purported to provide a solution to the educational problem. The truth is, the driving force for these

schools is economic: parents pay exorbitant fees to these institutions in trying to provide their children with a better education. Some African students from well-to-do families are now being taken to recently opened White schools. The clear disparities that exist in education prevent African children from adjusting to these White schools. Jumping over the fence by sending Black students to White schools instead of addressing the issues that make Black education less attractive does not solve the problem. Well thought out measures need to be taken in order to solve the educational crisis (Molobi, 1988).

#### Needs of the educational system:

##### Long term needs

The government must pass legislation that forbids apartheid education. Educational reforms that are aimed at solving the educational crisis in Black schools must be envisaged. Education must be made free and compulsory until standard 10 (Grade 12). The state must initiate steps for affirmative action to redress the inequalities that have been created by the apartheid system. A high standard of education must be maintained at all levels. Moreover, educational reforms must be accompanied by political as well as economic improvements.

Ethnically based education should give way to progressive as well as dynamic education. Conservative approaches in traditional education such as authoritarianism as well as autocracy must give way to democratic expression and participation in decision-making.



While it would be unwise to introduce a totally new education system, a blend of what is good in the old and the new systems should be advocated. Issues such as retention of mother tongue instruction at elementary level, with the introduction of English or Afrikaans at elementary level should be considered in cases where strong feelings exist. The curriculum should be emancipatory, that is a learner does not play a passive role in the intake of the subject-matter, but creatively and critically accommodates and applies his or her knowledge (Jansen 1990). Learners must be encouraged to develop independent thinking and a questioning attitude so that they can take decisive initiatives in their own learning. Integrated schooling should be allowed so that any learner may go to the school that is most ideal for him/her. In integrated schools, approaches such as inter-racial team teaching, and peer group teaching should be encouraged in combating racial stereotypes.

The high teacher-pupil ratio that reaches its highest level in the Black sector should be reduced. Literacy campaigns to increase productivity of the individual and to boost morale for learning in general should be undertaken (Nkomo 1990). The culture of teaching and learning which is at a low level in African schools must be effected through intensive as well as extensive schemes. Learners and teachers should be aware of the high expectations that society demand of them and that everybody must contribute positively to national education. Adequate provision of teaching and learning equipment at African schools must be regarded as a matter of

urgency. Libraries and laboratories must not only be provided at every school but must also be sufficiently stocked.

Young children who dropped out of schools must be trained in job related fields, and the private sector as well the government should devise means of creating employment opportunities for these children. Intensive psychological services as well as the services of social workers must be directed toward re-orienting and properly adjusting young people to be useful to the community.

More consideration must be given to vocational as well as technical education. It may be important to consider a scheme that has been suggested by the Committee of Heads of Education Departments. They envisage a need to change the emphasis in Black education by preparing for the introduction of technology as a field of study (Nicholson, 1992). The private sector should be encouraged to invest in education and make its contribution in the establishment of technical education (Adam & Moodley 1986). Different technical institutions that do not provide coordinated training are expensive for the country. Furthermore, this results in frustration of certificate holders as other certificates of institutions held in low regard are not accepted in the job situation. The country should have a policy that makes it possible for different tertiary institutions to be subjected to nationally approved standards, so that all qualifications have equal value irrespective of whether the education was provided by educational bodies such as the technikons or by employers. What can be done is to have a coordinating committee formed by members from technical

institutions as well as representatives from the private sector in order to make the training of workers cost-effective (Dreijmanis,1988).

Curriculum must be relevant to the needs of the people. The importance of making education relevant to the needs of the people was highlighted in the UNESCO Conference of 1961, when it was shown that the content of education for Blacks was based on non-African curriculum. Consequently the report advocated that education should be based on an African environment, child development philosophy, and cultural heritage, and should include programs which prepare students for technological progress and economic development. Various racially oriented Departments of Education would have to give way to a single non-racial Department of Education. While education should reflect the national character, regionalization of education must be implemented in order to reflect the interests, aspirations as well as the needs of the people (Jansen, 1990).

Teachers need to be retrained. Apartheid education over-emphasized ethnicity of people, instead, multicultural education should be presented as an enriching educational strategy. Stereotypes in the content of education that exploit racial differences should be uprooted. Well-planned upgrading schemes for outdated teachers' certificates should be initiated. Specialization in teaching, particularly in the sciences, should receive priority.

Extensive programs should be established for Blacks in order to make up for many years of neglect. While most attention should be

paid to the quantity in education, at the same time, one should not lose sight of establishing quality in education. Frustration with the present system of education has gathered momentum in a demand for "people's education." People's education means an education system that Blacks can identify with, and in which their aspirations and needs would be satisfied (Hyslop, 1988). A belief has been created in society that people's education would provide an "instant solution" to the educational problem. In some cases, students have taken over the administration of some schools in the name of people's education. The merits and demerits of people's education should be subjected to meticulous scrutiny so that we can conceive of an education system that is based on reason and not on emotion. However, care must be taken not to propose an education system that may be utopian.

Blacks should be given the opportunity to participate in the education policy-making process at the national level. Able and recognized educators as well as leaders of repute should be given an opportunity to contribute to the restructuring of education. The criteria upon which the government makes appointments in senior levels should be based on fairness and ability instead of the present style of hiring "useful allies" (Adam & Moodle, 1986).

Parental involvement in education is essential. It is those parents who understand the value of education who are able to inspire and motivate their children toward learning. Participation of parents in the educational system should be left at the local as well as the national level. At the national level, parents with

specialized knowledge should participate in educational administration and policy-making while on a local level parents may serve in an advisory capacity. Appraisal committees could critically evaluate recommendations before implementation. At a local level, parents could also be allowed to establish and administer day care centers.

To put education on a sound footing, educational innovations should be encouraged through government funding. The state must be prepared and willing to shoulder its financial as well as legal responsibilities. In accommodating Black aspirations in the new education, the present per capita spending for Africans which equals one tenth of money spent on White education will have to be corrected. (Adam & Moodley, 1986). A diversity of educational opportunities should be created for all learners. Democratic control of education should take precedence over bureaucratic control. Collective administration of education by bodies that have an interest in education could play a role in bringing about improvement. Such bodies as the private sector, teacher associations and community bodies such as workers' unions, the National Education Crisis Committee and research institutions could play a key role in bringing about improvement (Barker, 1992).

The education of Black people has been neglected for many years. It cannot be addressed through 'ready made or quick solutions.' A reasonable way could be to solve one particular problem and then proceed to the next. Giving attention to preschool education could be

purposeful in bringing about meaningful change in the education of Blacks.

#### Restructuring the education system

Something must be done to improve Black education. Good kindergarten programs make sense, based on the premise that early prevention is more desirable than later remedial treatment. Concentrating efforts in developing effective kindergarten programs could be the most productive strategy in a country that is in a state of development and whose limited economic resources cannot meet all its educational demands.

There are a number of research findings that support the importance of early childhood education, especially at a preschool level. These findings have been consistent in showing the importance of preschool education in promoting the normal pattern and pace of human development, and for setting up a stimulating environment which promotes development (Wahlstrom, Delany-Denohue, Clandinin, & O'Hanley 1980). Education at this early level is likely to provide intrinsic motivation for learners to acquire interest in learning. It is ideal in off-setting various deficiencies that children bring along with them when they start schooling. It also forms the basis upon which later education can be established. Some researchers do not agree with the evidence that relates to the effectiveness of preschool education in accelerating the rate of development in the social, the physical, the emotional and the mental aspects of the child. Their reason is that the cognitive gains achieved in preschool education are of a short duration. However,

this researcher aligns himself with the research findings that look at the relevance of preschool education in increasing the achievement level of the learners. Foster and Headley (1959) describe the benefits of kindergarten education:

(1). Children with kindergarten training tend to make relatively more progress in the first five grades than those who have not attended; (2). the proportion of first grade repeaters who did not attend kindergarten is much greater than that of children who attended kindergarten; 3). kindergarten-trained children in the first grades surpass others in the amount and quality of their writing and 4). kindergarten trained children tend to receive higher teacher ratings on such traits as industry, initiative and oral language than those without kindergarten experience.

The findings of other researchers ( Bereiter et. al. 1965; Larson and Olson, 1965; Weikart et. al.1964 ) also confirm the importance of preschool programs in raising intelligence test scores, vocabulary level, expressive ability, arithmetical reasoning , as well as reading readiness (Brittain,1968). Of equal significance is the realization that preschool children who have attended kindergarten tend to achieve more short term cognitive gains than do their counterparts. The Peabody Early Training Project (Gray and Klause,1965) and the program of the Institute for Developmental Studies (Goldstein,1965) reported a substantial increase in IQ scores for these preschool children as compared with those in the control groups that have not attended kindergarten. In both programs, gains in the elementary groups were maintained for about

two years (Brittain, 1968). These research findings further support the notion that early education in the form of systematic guidance to the child seems to make more impact on the general education of the individual.

Research studies in the developmental psychology show that certain aspects of the child such as cognition can be influenced positively through school-readiness programs. The interaction of nurture and of nature make an influence on the education of the child. It is reasonable to assume that the younger the children, the more dependent is their learning ability on adults' guidance about their life-worlds (Biber, 1984). This implies that a child needs somebody in the person of a parent or a teacher who could facilitate the development of his/her potential.

Preschool education can be described as a non-formal type of education where children between the ages of two and six are guided by an adult. The purpose of this guidance is to prepare children for the formal education they are to undergo after the age of six. This form of education should be under the supervision of skilled personnel who are conversant with early childhood education (Todd & Heffernan, 1977). Many types of preschool centers exist which serve the various needs of a community: Of interest in this research are two such types of preschool centers: the pre-kindergarten and the kindergarten which cater to children of three to four and five year olds respectively. Kindergarten generally refers to that year of school experience that immediately precedes the first grade. (Headley, 1965). Rudolph and Cohen (1964) explain that kindergarten



must therefore be seen as a significant aspect of school life in its own unique way, stretching the minds of children but holding off on the tools for book learning, developing the broad qualities necessary for scholarship but not too demanding so that it does not overburden the child with the acquisition of specific skills. Workplace day care centers serve the children of the employees of a particular company while community owned day cares provide preschool education to the children of a particular community. School-readiness can be viewed as a preparation or a state of preparation for undertaking new activities such as those associated with academic learning (Debyshire, 1989). This preparation is designed with a view to increasing the child's level of achievement particularly at elementary level, that is measured through the process of formal public schooling. School-readiness can thus be viewed as the sum of the child's physical, mental, social, and emotional development at a particular time. In the same way, a child's lack of readiness may be considered a deficit or a detriment because it indicates a lack of what is considered a requirement for first grade level (Morrison, 1988).

It is however, important to note that the school is not the only agency that plays a role in preparing the child for school; the home also makes an important contribution in this direction.

The fact that many Black children come from lower socio-economic backgrounds implies that they start their schooling already being restricted in their exploration of knowledge as a result of their limited resources. For example, children from poor

families are often not afforded opportunities as well as educational material that could be beneficial in exploiting their potential. This fact is underlined by Orstein (1979) who says current research indicates that the educational deficits lower-class children bring with them to the classroom inhibit their potential academic achievements. This makes necessary the creation of a learning environment that could provide inspiration and motivation for these children. Compensatory education could thus be instrumental in leveling off the educational drawbacks of these children. The programs of compensatory education were developed specifically to upgrade disadvantaged children. They included programs such as bilingual education, child-centered learning, guidance and counseling as well as drop-out prevention devices used to compensate for the educational deficiencies of these children (Frost & Hawkes, 1970). One of the assumptions of compensatory education is that it is supposed that the highest rate of cognitive growth occurs in the early years of childhood (Orstein, 1978). On the same score, Bloom's (1963) research in mastery learning concluded that young children can attain similar learning ability and motivation. However, Ginsburg (1972) criticizes assumptions for compensatory education as having no scientific base. He makes a strong assertion that compensatory education is based on wrong assumptions concerning the nature of the lower class environment, the developmental process, the intellect of the child, the techniques of education as well as the effect of early experiences on later performance. He further states that as a result of these faulty assumptions and

perhaps other factors, compensatory education does not work. This strong challenge to the ideals of compensatory education requires re-evaluation of its assumptions as well as further research in this area. However, it is my view that abandoning the whole program because of this criticism would be a step in the wrong direction. While admitting that there might be some shortcomings in the research conducted on compensatory education, it could be wrong to presuppose that the bases of compensatory education are false. The mere fact that Ginsburg does not criticize the findings of compensatory education by means of counter research but through analysis of the assumptions of compensatory education weakens his case. In contrast to the analysis of Ginsburg, Sullivan argues that the bases of compensatory have been tried, and have been tested, and that they work (Sullivan, 1966). It has been established through research that children who are placed on compensatory programs gain higher scores, and are better motivated than their peers who did not undergo compensatory education. It is important that preschool education should be offered to all children in order to provide equal educational opportunity to all learners so that pupils should be on the same educational footing when they start with formal education. There is a negative effect of compensatory education when it is given to a specific class of children which is under-achieving or is disadvantaged or when it is used to single out children.

A recent research study conducted by Pasnak, McCutcheon, Hold and Cambell (1991) based on a sample of low socio-economic as

well as low ability kindergarten children showed that when children in the experimental group are provided with an effective instructional technique (Piagetian mathematical operations) they perform better on standard mathematics curriculum than their counterparts in the control group who received normal instruction. This further emphasizes the fact that much can be done to increase the learning of the child. The subject-matter should be both stimulating and foster creativity in children and thus be able to accelerate their school-readiness. The methods and techniques of presentation of the learning material should be effective in exploiting both the cognitive and the affective domains of the child. Play should form part of the learning environment of the child (Allan & Hart, 1984).

There are a variety of factors that play a role in determining the efficacy of preschool education, including the extent of parental and government involvement, the role of the teacher, the relevance of the curriculum as well as the physical environment of the preschool. It will thus be important to establish to what extent these factors exist at present in Qwaqwa preschools and what effect they have in benefiting children in an education system.

Curriculum forms an essential aspect of preschool education. The education of the child in a learning situation is based on curriculum and it is upon this basis that it (curriculum) should be relevant to the child. It should be in agreement with the following proposal : (Bredekamp 1987)

1). It should be based on appropriate learning theory such as Developmental Theory. The importance of this theory is that it explains the processes that are involved in the development of the child. This could be helpful to enable teachers to devise content that is appropriate to the child's level of development.

2). The instructional objectives of the program should be well articulated and geared toward accomplishment of defined ideals. These objectives are to define what is to be learned and how the content is to be presented in accomplishing these defined ideals. For instance, a program that intends to develop cognitive aspects of the child should state how the program is to be planned and how the success of learning would be measured.

3). The curriculum should be based on convincing research findings. Teaching needs continual research undertakings in order to evaluate the effectiveness of teaching methods and on improve the learning environment of the child. As a result of research, there are new ways that are being presented to improve the learning of the child through the use of effective teaching methods. Research studies are conducted to explain the role of motivation, self-concept and parental participation in education and on how these issues could contribute to the effective learning of the child.

4). The roles of the learners in the didactic situation should be well defined in order to explore critical thinking, creativity, problem solving and the use of imagination. For example, a program that does not regard the child as an active learner would not provide the child with enough opportunity to explore knowledge. Attention

will be paid to Developmentally Appropriate Practice in Early Childhood Education as outlined by the National Association for the Education of Young children.

Self-concept plays an important role in determining the achievement level of the learner. Children with high self-esteem will probably achieve better results than those with low self-esteem (Wigfield & Karpathian,1991). It will be interesting to find out whether preschool education has an impact on the child's positive self-concept. The argument in favor of this could be used to justify the role of preschool education in increasing school achievement.

Teaching is a skill that needs to be continually perfected in order to meet the changing needs of learners. Ever-growing demands and challenges for teachers require intensive training programs for them. High quality teacher-training institutions whose aims and objectives are geared toward the attainment of a high standard of teaching are essential. The expansion of knowledge, as well as changing societal needs as a result of the technological advances, make an impact on teacher-training to cater to the varying needs of the students by way of offering specialized knowledge. Specialized education, instead of a general one should dominate teacher-education. The provision of teacher-education should be oriented to multi-faceted areas such as Early Childhood Education, Educational Technology as well as specialization in the fields of commerce and the natural sciences. Emphasis on specialized knowledge is in line with the requirement of competency based education which makes

provision for the demonstration of excellence in specific skill as a prerequisite for the profession (Morrison, 1984).

In the African tradition, parents have an obligation to look after the welfare of their children. One area in which parents look after the needs of their children is to be directly involved in education. Spodek, Saracho, and Davies (1991) emphasize that an early education program that does not respect the importance of parents in education cannot be successful. Todd and Heffernan (1977) state that the success of the child in a preschool group depends on the extent of parental contribution and participation to that part of education. Piaget's view of the interactive involvement of the child with the environment calls upon parents and educators to facilitate active developmental growth of the child. Parents have to understand the implications of their children's stages of development so that they are able to provide these children with guidance as they go through these stages. The involvement of teachers and parents in the education of the child has a beneficial effect. There are some research findings by Henderson (1988) and Epstein (1986), the National Committee for Citizens in Education, 1980; Harwery & Rosenholtz, 1963 respectively) which show that the participation of parents and teachers in the education of learners helped to increase performance in school work. Thus to create an ideal learning environment for the child, the parent-teacher relationship should be based on mutual respect and understanding of each partner's role concerning the learning of the child and the sharing of information about individual children as

well as child development philosophy (Schweinhart & Weikart, 1986).

### Statement of the Problem

The problem for the research: Would preschool education benefit Black children and improve the education system for Africans? The following questions will be of interest to the researcher:

1(a) I hypothesize that children who attend kindergarten will achieve higher scores in reading, arithmetic and the average pass mark than those children who do not attend kindergarten.

1(b). I also hypothesize that children who attended kindergarten will achieve higher scores in self esteem and mental maturity than those children who did not attend kindergarten.

2. I predict that children with higher scores (item 1(a) above) and higher rate of development (item 1(b) above) will have attended kindergartens with higher ratings in Early Childhood Environmental Rating Scale than their counterparts.

### Rationale for the Study

The state of education for Blacks in South Africa is deplorable. There are several factors that cause this lamentable state, such as

1). Lack of adequate provision for preschool education, in preparing the child for elementary education.

2 ). Poor teaching that results in low achievement and general apathy in the child toward formal education.



- 3). Lack of motivation in pupils for schooling.
- 4). Lack of involvement by parents in the child's basic education.
- 5). Unfavorable environmental factors that put children at a disadvantage for learning, such as poverty, racial discrimination, as well as misdirected reforms.
- 6). Lack of diagnostic measures in determining the child's school-readiness.
- 7). Lack of provision for specialized education for those children whose educational progress is slow (Short, 1985).

The reason for this research emanates from an ever-growing number of students, particularly at lower levels (elementary level) who drop-out as a result of lack of interest in schooling, and a high failure rate. As a result of the unstable political situation, teachers and school children have become radical in their demand for improvement in education. Learners regard what is being taught as irrelevant and society in general is negative about the present system of education that is based on apartheid philosophy. The South African government as well as administrators in education have little control over education. Similarly, teachers are not motivated to teach under the unpopular department of Black education. The fact that Black education lacks acceptance was highlighted by the Minister Education and Development Aid in 1989 (African education) at the Department of Education and Training's Macro Planning Conference when he said that one of the problems with which the

Department has to contend with is the question of credibility (Viljoen, 1989).

Kindergarten education is considered extremely important in diagnosing educational problems that may seriously influence the education of the child at a later stage. Thus kindergarten education prepares children for school-readiness and this implies that if children are better prepared for academic learning, failure rate at a later stage will be greatly reduced. The basis of a school-readiness program should be to : 1) address the inequalities in early life experience with a view of making it possible for all children to have access to the opportunities that promote success in school; and (2) recognizing and supporting individual differences among children; and (3) establishing reasonable and appropriate expectations of children's capabilities upon school entry (Bredekamp, 1990).

## CHAPTER II

### Method

This research sought to determine whether there was a significant difference between the performance of children who had attended kindergarten and who those had not attended kindergarten. The following hypotheses are proposed :

1(a) Children who have attended kindergarten will achieve higher scores in language, writing and math than those children who have not attended kindergarten.

1(b) Children who have attended kindergarten will achieve higher scores in self-esteem and mental maturity than those who have not attended kindergarten.

2 (a) Children with higher achievement scores and higher scores in self-esteem and mental maturity will have attended kindergarten with higher ratings according to the Early Childhood Environmental Scale than their counterparts (Harms & Clifford, 1980).

Permission from the Secretary of Education Department in Qwaqwa enabled me to conduct research in five Junior and Combined primary schools in the North Circuit (Appendix I). It was not necessary for me to get permission from parents since the Secretary acted on their behalf. Pupils' files of Sub A examination results were obtained from the principals' offices in all the schools in this study. In each school, permission was given to photocopy examination results of the classes which were studied.

## Sample

### Schools

The administration of education in Qwaqwa schools is highly centralized. The Secretary of Education is responsible for all schools in the region which are grouped in circuits. The circuit administers all the schools under its jurisdiction on behalf of the Secretary of Education. Each circuit is staffed by a circuit inspector, assistant inspectors as well as clerical personnel. The same guidelines are issued by the Secretary through the circuits to the schools. All schools follow the same syllabi, use the same prescribed books and are subject to the same regulations. Subject advisers are appointed to give advice on their fields of specialization. Each subject advisor is responsible for her/his own subject area for the whole region. As a result, examinations for particular grades are the same and are written on the same dates. Teachers are encouraged to work on joint projects within the circuits.

The schools in this research have been given different names in order to protect their identities as a result of the agreements reached with the principals. Information collected through interviews with the principals, the teachers, and through observations conducted at each school, was used to compile profiles of individual schools.

The official entry age of pupils into formal education at Sub A level in Qwaqwa schools is five years of age. Table 1 shows the distribution of children who participated in the research. It will be

distribution of children who participated in the research. It will be seen that there were approximately equal numbers of boys and girls, that the number of children with low SES largely outnumber those in the high SES group, and that the number of children without kindergarten experience was unevenly distributed among the schools.

Table 1

Distribution of children in Sub A classes according to Ses, Sex, and Experience

Schools	SES		Sex		Experience	
	L	H	F	M	K	no K
Thabong	20	7	12	15	16	11
Thabo	21	6	14	13	15	12
Thabiso	22	7	15	14	25	4
Thabang	17	13	11	19	19	11
Nthabiseng	18	8	15	11	17	9
Total	98	41	67	72	92	47

K= Kindergarten

no K= non-Kindergarten

### Thabong School

This is an organized school. Most of the school activities were done according to the planned schedule. The school has an insufficient supply of kindergarten materials such as toys, books, fine motor as well as gross motor equipment. Kindergarten teachers complained that they do not get support from the principal for purchasing more equipment. Parents were not involved in school activities.

### Thabo School

Teachers as well as heads of departments have clearly defined duties and make periodic reports on their job specifications. Discipline was emphasized in this school. The principal delegated most of the kindergarten work to a departmental head and appeared not necessarily aware of what was happening in kindergarten classes.

### Thabiso School

This school's administration carried out its work efficiently. The principal and her staff were highly motivated in their work. The school had a sufficient supply of kindergarten equipment: Toys, books, and materials required for fine and gross motor activities. Members of the staff are moderately well qualified in this school. Teachers were aware of the good reputation of their school and strove to maintain it. The key teacher in the kindergarten classes observed by the researcher was very knowledgeable in working with

Kindergarten children, innovative in her teaching and dedicated to her work. Parents were actively involved in the activities of this school.

#### Thabang School

The school was well administered and team work among the teachers was emphasized. The school had an insufficient supply of kindergarten equipment. A preschool teachers' committee worked with social workers in dealing with the pupils from a nearby orphanage .

#### Nthabiseng School

This is a relatively new school. The principal of the school is not qualified in Early Childhood Education but was knowledgeable in the philosophy of Kindergarten education. She went out of her way to invite experts in childhood education to her school to conduct seminars for her teachers. The school was well administered and the teachers were dedicated to their work. She encouraged teachers to excel in their work and follow-up was made on teachers who lagged behind. Teachers were divided into subject groups according to allocated subjects. Each subject group had to conduct demonstration lessons for the staff members. A parent-teacher association was established to streamline and coordinate activities of this school. The principal tried to find solutions for every problem that impeded effective teaching. She did not only rely on delegating duties to departmental heads but made an effort to keep abreast of the activities taking place at her school. She complained



about not getting the necessary cooperation and support from the social workers in dealing with children from a nearby orphanage. The school had sufficient equipment for Kindergarten.

Five Sub A (Grade1) classes in five schools, which had kindergarten programs, were randomly selected for the study from among the 16 primary schools which included kindergarten in the North Circuit. These schools are given pseudonyms in order to maintain confidentiality which was agreed upon with the principals of the schools. They are Thabong, Thabo, Thabiso, Thabang and Nthabiseng. (All these are Sesotho names which have a common root which means joy. Thabo means joy and Thabong implies a place where joy is found, Thabiso and Thabang are masculine names for joy while Nthabiseng is a feminine name for joy). Since the kindergarten year is not compulsory, not all children in these classes had attended kindergarten. This made it possible to study the effect of preschool education on those children who had attended kindergarten as against those who had not attended kindergarten. One of the schools that was initially selected was withdrawn because in that school children who had kindergarten education and those who did not were separated at Sub A (Grade1) level and were taught by different teachers. This situation would have presented an additional variable, in that the difference in the teaching of two persons could be a factor for a variation in the performance of the two groups of pupils. Therefore another school was chosen to substitute for the one that was withdrawn. A total number of 139 children participated in this study from the five schools. The

number of the pupils in the classes varied according to the schools' organization and students' availability, the average being 27.

### Procedure

Five teachers who taught these children at Sub A level, one in each school, filled in the Behavioral Academic Self-Esteem Rating Scale (BASE) questionnaire (Appendix A) for every child. Seven kindergarten teachers completed the Early Childhood Education (ECE) questionnaire (Appendix E). Although it had been anticipated that two teachers per school would respond to this questionnaire, in fact, it was only possible to obtain one teacher per school from three schools, and in was only in two schools that two teachers per school completed the questionnaire. The reason for this was that there was only one kindergarten teacher in most of the schools which participated in the research.

Five principals of the schools included in this research as well as five teachers who taught at the kindergarten level, one in every school, were interviewed. In addition, three government officials were also interviewed.

Before this research was undertaken, a pilot study was conducted by the researcher in Montreal day care centres. The purpose was to become acquainted with techniques of conducting interviews and to observe different childhood settings in order to establish a base upon which to conduct the present research.

## Measures and Materials

### Academic Self-Esteem questionnaire

The scale used to measure Self-Esteem, the Behavioral Academic Self-Esteem Rating Scale (BASE) was developed by Coopersmith and Gilberts (1982). THE BASE consists of 16 third-person declarative statements which can be answered by any person who has observed children's classroom behaviors for a minimum of six weeks on a daily basis. A teacher rates how frequently a child behaves in a particular way, using a five-point scale which ranges from 1(never) to 5( always).

A questionnaire (Appendix A) sought to gather information from teachers of Sub A classes on the ability of their pupils to perform certain developmental tasks, by asking them to measure the self-esteem of every child she was teaching. This questionnaire focused on the teacher's rating with regard to the child's level of initiative, socialization, self-confidence and success or failure in a learning situation. The purpose of this data collection was to determine whether there was a significant difference between children who had attended kindergarten and those who had not attended kindergarten in relation to their social, cognitive, emotional, verbal and physical skills (Instructions on completing the questionnaire are detailed in Appendix G).

The BASE was first tested on 4,000 children from families of broad socio-economic status (lower to upper middle class). The sample included a majority of average students but also students

from the extremes of school achievement (gifted as well as educationally handicapped children). Students who were rated by regular classroom teachers equaled 90%, and the remaining 10% were rated by aides and remedial/special education teachers.

Calculations of internal consistency based on the correlation of individual items with the total score showed a significance at the (.001) level which ranged from a low of .37 to a high of .76 which had z-transformation of the correlation coefficient of .61. Intercorrelations with the total score ranged from .71 to .94 with means of .83 for boys and .84 for girls when different teachers rated the same children. The interrater reliability was reported at .71 in a sample of 216 students (Coopersmith and Gilberts 1982).

The validity of BASE was established according to its relationship with a significant criterion of the student's level of achievement on the Comprehensive Test of Basic Skills (CTBS), a norm referenced academic achievement test. With a sample of 126 children it was found that the BASE ratings were fairly strong predictors of academic achievement scores. The correlation of the CTBS composite scores was approximately .50 with the total BASE scores (Coopersmith and Gilberts, 1982).

At the kindergarten level, the BASE showed a weakened correlation with school achievement scores ( $r=.36$ ). More work in this field needs to be done for a more accurate estimate of BASE's predictive validity with kindergarten children (Coopersmith and Gilberts, 1982).

### Goodenough-Harris Draw-a-Man-Test

To measure the children's Mental Maturity, the Goodenough-Harris Draw-a Man test was used. This is a culture-free, language-free test modified by Harris (1963), and it was therefore deemed appropriate for use with South African children.

The drawing test had been conducted and standardized on a total of 2,975 urban and rural children in four major geographic areas of the United States. A total of 300 was finally selected as a representative sample of children from families of broad socio-economic status (e.g. lower and upper class families), for testing from kindergarten level through ninth grade (Harris, 1963).

The reliability of the test was established through interrater and test-retest consistency. It has been found (Harris, 1963) that the intercorrelation between independent scores ranges from the low .80's to as high as .96, with values commonly exceeding .90. Test-retest consistency, which has been established through extensive research, indicates correlations ranging from .60 to .70 between the scores of children's drawings separated by a time interval of as much as three months. In proving the consistency of test-retest reliability, Harris (1963) administered the Drawing Test on each of ten consecutive school days to four classes of kindergarten children. The results revealed that in spite of significant differences between the performance of boys and girls and the individual children, the portion of the total variance

accounted for by variation within the sequence of ten drawings (intra-child) was insignificant.

In demonstrating the validity of the Test, Harris (1963) conducted a study in six first and second grades of two schools in order to assess the influence of the examiner in the test situation. In two examinations, scheduled one week apart, Harris and the classroom teacher administered the Drawing Test according to the same instructions. The results indicated that the person administering the test had minimal influence on either the mean score achieved by the class or on the rank order of children's scores within the class. In the two classes, the difference in results was not found to be statistically significant.

The test can be administered to children individually or in groups. In all five schools visited, the children were addressed as a group in their classrooms, and (Appendix F) each child was asked to draw a complete picture of a human being (either sex) using a pencil on a 22 X 28 cm blank sheet. Instructions were given in Sesotho which could be understood by all the children. The name of the child was already written on the sheet. In communicating with these children, at no stage was the word 'test' used.

#### Socio-economic status

Drawing from the school registers, the researcher also procured information about the type of work done by the parents of the children in this study. The information about the jobs of the parents was used to assign socio-economic status (SES) to the children. It was originally intended to use the Hollinghead (1975)

scale to measure SES. This scale takes into consideration four factors in the calculation of SES: Occupation, education, sex, and marital status. The SES is determined by the application of a mathematical equation which incorporates all four factors. Detailed information on parents' educational backgrounds as well as their job experiences was not available, as most parents were engaged in migrant labor and it was not possible to interview them. For this reason, the scale measuring the socio-economic status of the parents which needed detailed information on educational as well as occupational background of the parents as outlined by Hollingshead (1975) could not be used.

Two distinctions were therefore made of the types of jobs in which parents were engaged. The first category, high income group, consisted of parents who had professional jobs. These included parents with post-matriculation qualifications (Grade 12) such as teachers, police, business people, and those engaged in jobs such as electricians, plumbers and clerical work. To qualify for high SES either parent or two parents must have post matriculation qualification. The second category, low income group, consisted of parents who had below matriculation education and had not specialized in any career. This information was considered useful to examine whether the scholastic achievement of the child was correlated with the socio-economic status of the parents.

### School results

The children's examination results in three areas of achievement were considered to be a component of their academic ability. The ability to master writing is regarded as an important consideration especially at an initial stage of schooling. The examination results for reading and verbal communication were included under the language scores and thus the examination results for language indicated the reading ability of the pupils. The acquisition of language is essential in determining the child's scholastic ability. The arithmetic examination scores appeared under math scores. The importance of math as a school subject is underscored by the fact that it is a compulsory subject from Grade 1 to (almost) Grade 12.

The scores of dependent variables (language, math, writing, self-esteem and mental maturity) were used to determine whether there was a difference in the performance of the children who had attended kindergarten and those who had not.

### ECE Questionnaire

The ECE questionnaire (Appendix E) developed by the researcher surveyed teachers' qualifications, gender and experience. It was also used to gather information with regard to their philosophy as well as their instructional program for kindergarten children. This information also served to measure the theory and practice of these



teachers compared to that set out by Bredekamp's (1987) *Developmentally Appropriate Practice in ECE*.

### Interviews

Interviews were conducted with various people who were involved in kindergarten education in Qwaqwa. The first interviews (Appendix C) were conducted with principals of the five schools in this research. In one of the schools, the researcher had to conduct an interview with the principal's deputy because the principal was not available. All interviews were conducted in each principal's office. The purpose of the interviews was to ascertain the philosophy of the principals with respect to ECE, and to compare it with the approaches to the Early Childhood Education as envisaged by Bredekamp's (1987) guidelines for the National Association for the Education of Young Children. These guidelines are frequently used in North America to determine quality of preschool settings.

Interviews were also conducted with five kindergarten teachers, one in each school. The purpose of interviewing teachers was to measure their knowledge (Appendix B) of early childhood education. The majority of the teachers interviewed related their experiences with the local inservice-experience centre. Although a question on the relationship of teachers with the inservice-centre had not originally been included on the interview schedule, it was later added after the first interviews because of its important nature. The focus of the interview was to determine to what extent these teachers' methodologies were in agreement with philosophies

which underlie preschool education, such as those of Piaget and Montessori, as well as with the guidelines set by the National association of the Education of Young Children. Interviews with these teachers were held in their respective classrooms during school time while the children were kept busy with school work.

Three interviews were conducted with government officials, two of them with government officials involved in the administration of preschool education. The interview with the second official was a follow-up to questions on a structured interview schedule (Appendix D) which could not be answered by the first official. The third interview was not a structured one. These interviews were held at the officials' offices. The purpose of these interviews was to obtain information which related to the Departmental (Education) short and long-term policy on preschool education, teacher-education (Pre-Primary) as well as the provision of facilities at preschool level.

#### The Early Childhood Environmental Rating Scale (ECERS)

To determine the relevance of preschool education, the appropriateness of the teaching offered at kindergartens as well as the relevance of the equipment in use was evaluated. The Early Childhood Environmental Rating Scale (ECERS) developed by Harms and Clifford (1980) was used to assess the quality of the preschool centers (see appendix H). Based on the researcher's observations of day care centers in Montreal, the quality of a day care centre is determined to a large extent by its philosophy as well as the way in

which the centre is administered. The five kindergarten classrooms in each school of the study were observed by the researcher and rated according to ECERS.

The ECERS surveys seven areas including creative activities, language-reasoning experiences and social development which are further divided into separate sub scales which include 37 items. The rating scale is from 1 to 7, 1 indicating a low rating and 7 indicating a high rating. This scale can be used by any person involved in early childhood settings such as classroom teachers, directors or principals.

In determining the validity of the ECERS, Harms and Clifford (1988) took two approaches. First, seven nationally distinguished experts in early childhood settings were requested to rate each item on the scale in terms of its significance to childhood programs. The results indicated 78% of the ratings allocated expressed high importance while only 1% indicated low importance. After these findings, minor modifications in the scale were made which resulted in higher validity ratings of this version. Second, the scale was also tested on its ability to distinguish between classrooms of varying quality as determined by trainers who had been working with staff in those classrooms. A high correlation of .737 was obtained when ratings of the scale made by expert observers were compared with the trainers' ratings on 18 classrooms (Harms and Clifford, 1980).

### Analysis

To determine the self-esteem of the children (Appendix A) the BASE scale, the results from 16 declarative statements ranging from 1 (never) to 5 (always) were summed. The highest possible score that a child could receive is 80.

Analysis of the children's drawings produced a score for mental maturity. The Drawing Test can be scored by any person who can follow the instructions properly. It considers children's concepts of the human figure illustrated by their drawings to be an indication of their intellectual and conceptual maturity (Goodenough, 1926). Detailed account of the scoring is given in a manual and 12 Man drawings and 12 Woman drawings are presented for practice (Harris, 1963). The picture is scored using a uniform set of 73 requirements when a picture depicts a male, and a similar set of 71 requirements when a picture indicates a female. The calculated raw score is subsequently converted into a standard score (mean of 100 and standard deviation of 15) which indicates the child's relative standing on the test in relation to his/her age group as well as sex group (Harris, 1963). The scoring of the test was done after testing had been completed at the five schools.

The children's examination results were indicated in the examination schedule of each school. The total score for each examination result was converted into common denominator in order to facilitate comparisons of the scores.

The interviews were analyzed on the basis of the answers received, and were assessed on the criteria of the guidelines set by the National Association of the Education of the Young Children (Bredekamp, 1987).

The answers to the ECE questionnaire (appendix E) were analyzed on the basis of the guidelines set by National Association of the Education of Young Children. The scoring of ECERS was done by adding up 37 sub-scales ranging from 1 to 7. The overall total of ECERS subscales is 259. To determine each school's position on ECERS, the marks which were allocated to the school under each subscale were rank ordered.

Analyses of variances (ANOVA's) were conducted: The dependent variables were the children's scores in language, writing, math, self-esteem and mental maturity. The independent variables were type of experience of the children: Kindergarten or non kindergarten, type of SES: high or low. The school and the sex of the pupils were also considered as independent variables.

The Statistical Package in the Social Sciences (SPSS) software enabled the researcher to establish whether there was a significant difference in the main effects and interactions of examinations scores, mental maturity scores, as well as self-esteem scores according to type of experience, SES, sex and school. One-way analyses of variances were performed on scores other than that of ECERS. Scheffe tests were performed to locate the significant difference of the means with regard to type of experience, sex, SES and school.

Before analyses of SPSS data, the data file was examined for accuracy of entry and there were no missing cases found.

## CHAPTER III

### RESULTS

This research sought to determine whether there was a significant difference between the performance of children who attended kindergarten and those who had not attended kindergarten. The following hypotheses were tested:

1(a) Children who have attended kindergarten education will achieve higher scores in language, writing and math than those children who have not attended kindergarten.

1(b) Children who have attended kindergarten will achieve higher scores in self-esteem and mental maturity than those who have not attended kindergarten.

2(a) Children with higher achievement scores and higher scores in self-esteem and mental maturity will have attended kindergartens with higher rating according to the Early Childhood Environmental Rating Scale (Harms and Clifford, 1980) than their counterparts.

#### Assessment of the Children

##### Descriptive statistics

The summary of the children's ages at Sub A level were as follows: Kindergarten experience children had a mean age of 5.0

and children without kindergarten experience had a mean age of 5.4 years. The kindergarten children outnumbered the children without kindergarten experience. The majority of the children with kindergarten experience started school when they were a little over three years and the children who began their schooling in Sub A were already five years old or older when they started school.

Table 2 shows the mean ages of Sub A children according to school and type of experience of children i.e. children with or without kindergarten experience. The mean age of children without kindergarten experience in Thabo, Thabang, and Nthabiseng schools was higher than that of their counterparts respectively and it was in Thabong and Thabiso schools that the means of kindergarten experience children were higher than that of children without kindergarten experience. But, in Thabong School there was one child who was 12 years old in Sub A class, and when one subtracts the age of this child from the total, the mean age of the remaining kindergarten experience children is 4.8 years, and thus not 5.4 years when he is included in the total.

Table 3 shows the summary of means, standard deviations, ranges, as well as the skewness of the scores of the language, writing, math, self-esteem and mental maturity of the children. A larger number of pupils achieved high scores in language and math, and, as a result, the distribution of the means is negatively skewed. Conversely, a larger number of pupils achieved low marks in writing, and, as a result, the distribution of these scores is positively skewed.



According to Harris (1963), the scores on the mental maturity test indicated by a lower limit of 85 and an upper limit of 115 fall within the average category. The range of the scores for the sample in this research fell 27 points below the lower limit and 7 points above the upper limit. The skewness of the distribution of the scores indicates that the scores range from relatively low to relatively high with a concentration of the scores in the centre of the distribution (Table 3).

The average self-esteem score of the sample (53.1) falls within moderate self-esteem according to Coopersmith and Gilberts (1982), who provide three categories (high: 62-80, moderate:42-61, low:16-41) of self-esteem for preschoolers.

Table 2Mean Ages of children according to School and Experience

School	Kindergarten		no Kindergarten	
	n	Mean (years, months)	n	Mean (years, months)
Thabong	16	5.4 (4.8)*	11	5.3
Thabo	15	4.7	12	5.5
Thabiso	25	5.4	4	5.0
Thabang	19	5.2	11	5.9
Nthabiseng	17	4.9	9	5.4

\*= Mean age without 12 year old child in a class

Table 3Summary of Overall School Achievement Scores.

	Means	SD	Range	Skewness
Language	59.2	16.3	7 - 94	- .94
Writing	63.8	17.8	5 - 100	.41
Math	76.9	19.4	6 - 100	- .87
Esteem	53.1	13.1	18 - 78	- .61
Maturity	100.6	19.4	68 - 157	.79

Table 4 (a) shows the summary of means and standard deviations of language, writing, and math scores according to Experience, SES, and Sex. The means and standard deviations show that children with high SES scores performed better than children with low SES in all the evaluated areas. The results also show that females performed slightly better than the males, but not significantly so. The overall achievement scores indicate that the kindergarten group performed better than the non-kindergarten group and (Table 4 b) the opposite of this is reflected with self-esteem and mental maturity scores. Table 4 (b) shows the summary of the means and the standard deviations for mental maturity and self-esteem.

Table 5 indicates the means and standard deviations according to schools. Thabiso school, which has the highest mental maturity scores, also shows the highest averages in all three examinations. Although pupils in Thabo School achieved the highest self-esteem score of all schools, children did not perform better than most schools, except in writing.

**Table 4 (a)****Achievement Scores according to SES, Sex, and Experience of pupils**


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	Language	Writing	Math
	Mean (SD)	Mean(SD)	Mean(SD)
<b>SES</b>			
Low	57.7 (18)	63.7 (19)	75.9 (17)
High	62.9 (11)	64.1 (16)	80.2 (15)
<b>Sex</b>			
Female	59.4 (16)	64.3 (19)	78.7 (19)
Male	59.0 (17)	63.3 (16)	75.3 (20)
<b>Experience</b>			
K	58.7 (16)	65.6 (20)	77.5 (21)
no K	60.3 (12)	60.3 (16)	75.9 (17)

---

K= kindergarten

no K= non-Kindergarten

**Table 4 (b)****Mental Maturity, Self-Esteem Scores according to SES, Sex, and Experience.**

	Self-Esteem Mean(SD)	Mental Maturity Mean(SD)
<b>SES</b>		
Low	52.4 (14)	98. (19)
High	54.7 (11)	106.0 (20)
<b>Sex</b>		
Female	53.2 (14)	99.6 (19)
Male	52.9 (13)	101.0 (20)
<b>Experience</b>		
K	52.5 (14)	98.2 (21)
no K	54.2 (11)	106.0 (16)

-----

K= kindergarten

no K= non-Kindergarten

Table 5

Achievement, Self-Esteem and Mental Maturity Scores  
according to School.

<u>School</u>	<u>Language</u>		<u>Writing</u>		<u>Math</u>		<u>Esteem</u>		<u>Maturity</u>	
Thabong	56.7	(20)	49.5	(17)	79.5	(25)	39.4	(14)	98.3	(17)
Thabo	48.3	(12)	64.9	(6)	65.7	(16)	65.5	(4)	100.7	(21)
Thabiso	71.3	(9)	90.6	(11)	93.8	(7)	55.6	(12)	113.0	(20)
Thabang	58.3	(13)	54.3	(8)	68.3	(14)	56.3	(6)	97.7	(14)
Nthabiseng	60.8	(18)	58.0	(15)	77.3	(19)	47.0	(12)	92.2	(19)

### Analyses of Variances

Analyses of variances (ANOVA's) were conducted: The dependent variables were the children's scores in language, writing, math, self-esteem and mental maturity. The independent variables were Kindergarten Experience (yes, no), SES (high, low), sex (male, female) and School (Thabong, Thabo, Thabiso, Thabang and Nathabiseng). The school and the sex of the pupils were also considered as independent variables.

The achievement (language, math, and writing), mental maturity and self-esteem scores were analyzed to determine whether there was a significant difference in the performance of the kindergarten experience children and children without kindergarten experience. The occupational position of the parents of the children of this study was examined to see if it had an effect on the with pupils' performance. The kindergartens were rated using Harms and Clifford (1980) Early Childhood Environmental Rating Scale to see whether their rating had any effect on the pupils' performance.

Tables 6, 7, 8, 9 and 10 show that there are significant differences in the achievement (language, writing and math) self-esteem and mental maturity scores according to school. Table 9 indicates a significant 2-way interaction in self-esteem according to experience and school. Table 10 shows that there are significant differences in the results of mental maturity according to SES and school.



**Table 6****Summary of the Analyses of Variance on Language**

Sources of Variation	df	Mean Square	F Ratio	Significance Level	
<b>Main Effects</b>					
Experience	1	532	2.5	.116	
SES	1	647	3.1	.083	
Sex	1	25	0.119	.731	
School	4	2044	9.6	.000**	
<b>2- Way Interactions</b>					
Experience	SES	1	101.6	0.479	.490
Experience	Sex	1	577.1	2.72	.102
Experience	School	4	273.7	1.29	.278
SES	Sex	1	3.5	0.166	.955
SES	School	4	35.3	0.304	.875
Sex	School	4	279.4	1.32	.268

\*\*p &lt; .01

Table 7Summary of the Analyses of Variance on Writing

Sources of Variation	df	Mean Square	F Ratio	Significance Level	
<b>Main Effects</b>					
Experience	1	13.9	0.138	.710	
SES	1	304.8	3.07	.085	
Sex	1	18.5	0.184	.669	
School	4	7174.7	71.	.000**	
<b>2- way Interactions</b>					
Experience	SES	1	10.5	0.108	.748
Experience	Sex	1	60.9	0.602	.439
Experience	School	4	174.3	1.725	.149
SES	Sex	1	126.9	1.256	.265
SES	School	4	30.7	0.304	.875
Sex	School	4	271.8	2.691	.034

\*\*p &lt; .01

**Table 8****Summary of the Analyses of Variance on Math**

Sources of Variation	df	Mean Square	F Ratio	Significance Level	
<b>Main Effects</b>					
Experience	1	160.6	0.535	.466	
SES	1	1060.1	3.5	.063	
Sex	1	300.7	1.0	.319	
School	4	3614.5	12.0	.000**	
<b>2- way Interactions</b>					
Experience	SES	1	263.8	0.879	.351
Experience	Sex	1	122.3	0.407	.525
Experience	School	4	236.3	0.787	.536
SES	Sex	1	3.5	0.012	.914
SES	School	4	142.0	0.473	.756
Sex	School	4	365.2	1.2	.308

\*\*p &lt; .01

**Table 9****Summary of the Analyses of Variance on Self-Esteem.**

Sources of Variation		df	Mean Square	F Ratio	Significance Level
<b>Main Effects</b>					
Experience		1	73.1	0.826	.365
SES		1	158.0	1.8	.183
Sex		1	9.9	0.112	.739
School		4	2568.5	29.	.000**
<b>2- way Interactions</b>					
Experience	SES	1	139.2	1.6	.212
Experience	Sex	1	76.4	0.864	.355
Experience	School	4	305.3	3.5	.011*
SES	Sex	1	1.1	0.012	.913
SES	School	4	107.5	1.2	.308
Sex	School	4	151.1	1.7	.153

\*\*p&lt; .01

\*p&lt; .05

Table 10Summary of the Analyses of Variance on Mental Maturity

Sources of Variation	df	Mean Square	F Ratio	Significance Level
<b>Main Effects</b>				
Experience	1	0.644	0.002	.964
SES	1	2544.6	7.9	.006*
Sex	1	92.5	0.290	.591
School	4	1806.9	5.7	.000**
<b>2- way Interactions</b>				
Experience      SES	1	51.7	0.162	.688
Experience      Sex	1	5.8	0.018	.893
Experience      School	4	425.9	1.3	.261
SES              Sex	1	955.2	2.9	.086
SES              School	4	87.5	0.275	.894
Sex                School	4	597.9	1.8	.119

\*\*p&lt; .01

\*p&lt; .05

### Scheffe tests

One-way analyses of variances were performed on the scores of measured areas. Scheffe tests were performed to locate the significant difference between the means of the scores of the different schools on achievement, self-esteem, and mental maturity measures. (Table 11) Thabiso School performed better than most of the other schools in all evaluated areas except in Self-Esteem. The Scheffe test shows that the language mean (71.2) of Thabiso School is significantly higher than that of Thabo, Thabong and Thabang Schools, but is not significantly different from that of Nthabiseng School.

The writing mean (90.6) of Thabiso School is significantly higher than that of the other four Schools. The Scheffe test shows that the mean (64.9) of Thabo school is also significantly higher than that of Thabong and Thabang Schools but not significantly different from that of Nthabiseng School.

The Scheffe test indicates that the math mean (93.8) of the Thabiso School is significantly higher than that of the other four Schools.

The Scheffe test also shows that the mean (113.1) of mental maturity scores of Thabiso School is significantly higher than that of Nthabiseng and Thabang Schools but not significantly different from that of Thabong and Thabo.

The Scheffe test indicates that the self-esteem mean (65.5) of Thabo School is significantly higher than that of the other four Schools, and that the mean (56.3) of Thabang School is also

The Scheffe test indicates that the self-esteem mean (65.5) of Thabo School is significantly higher than that of the other four Schools, and that the mean (56.3) of Thabang School is also significantly higher than that of Thabong and Nthabiseng Schools. The mean of Thabiso School (55.6) is significantly higher than that of Thabong School.

Table 11Summary of the School means on the Dependent Measures


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	Language	Writing	Math	Maturity	Esteem
	Mean	Mean	Mean	Mean	Mean
Thabong	56.7	49.5	79.5	98.3	39.4
Thabo	48.3	64.9**	65.7	100.8	65.5***
Thabiso	71.3***	90.6****	93.8****	113**	55.6*
Thabang	58.3	54.3	68.3	97.7	56.3**
Nthabiseng	60.8	58.0	77.3	92.2	47.0

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\* Significantly different from one school

\*\* Significantly different from two schools

\*\*\* Significantly different from three schools

\*\*\*\* Significantly different from four schools



## Evaluation of the Learning Environment

### ECE (Early Childhood Education) questionnaire

An examination of the ECE questionnaires yielded information on teachers' years of service as well as on their qualifications. All seven of the respondents were females: Five of them had more than three years' experience and two had less than three years' experience. They ranged in age from 21 to 60. Two teachers fell into the 22-29 years range, two were between 30-39 and three were between 40-60.

Teacher qualifications varied. One teacher had a Primary Teachers' Certificate, two teachers had a Primary Teachers' Diploma and four teachers had a diploma in ECE. Six teachers attended courses monthly at the local teacher-in-service centre, and one teacher attended courses on a quarterly basis.

On the question as to whether schools had clearly stated objectives of what children are expected to achieve in kindergarten, six teachers answered in the affirmative and one in the negative. Five teachers agreed that their school philosophy was clearly communicated to them and two teachers indicated the contrary.

In response to the question about teaching in the schools, four teachers stated that content was adjusted to suit the children and three stated that children learn when they feel like. Four teachers indicated that instruction in their schools catered to individual

differences of children and three indicated that it was directed to the whole class.

All seven teachers stated that children work and play in groups and that their children's progress is evaluated on a continuous basis. All teachers indicated that their schools encouraged parent participation.

#### Interviews with teachers

One interview was conducted with each of the kindergarten teachers at their respective schools, according to the interview protocol shown in Appendix B. Teachers' responses based on the question relating to their instructional objectives for both short and long term goals were as follows: In the short-term, the majority of teachers cited preparation of pupils for school-readiness as their goal. As for the long-term objectives, teachers related two responses: They mentioned educating children to acquire maturity or independence and preparing the learners for formal education.

In response to a question as to whether teaching was a challenge, the majority of teachers felt that every day was a different day at kindergarten and as such they do not get bored in dealing with children. They thought teaching was a challenge because it gave them fulfillment, and a sense of worth as well as of achievement, because they were contributing to the children's development.

In answering a question regarding learners who lag behind, teachers mentioned that they do remedial teaching and give pupils individual attention. However, a few mentioned that they do not conduct follow-up sessions as children are expected to learn when they feel like it. Most of the teachers expressed frustration that they did not specialize in dealing with disabled children and that there was no kindergarten or a centre in Qwaqwa which deals with special needs children. They thought patience is necessary in orienting children to the school environment. Some teachers asserted that they consult parents about children's progress

On the question of preparation of lessons, the majority of teachers stated that lessons were prepared according to Departmental lesson plans. It was only in Thabiso school that the teacher indicated that she made her own modifications to the Departmental lesson plan. On the planning of a "circle", which can also be called "group time", children were encouraged to tell stories. However, a majority of teachers showed little knowledge in conducting a circle.

On involvement of parents in school matters, the teacher at Thabang school mentioned that she had to call the parents through the principal's office and that she did not get the support of the principal in inviting parents to the school. Other teachers met parents occasionally to discuss problem areas. Teachers also invited parents to attend children's birthdays, and they used such occasions to get to know parents. The majority of teachers saw these meetings as an opportunity to get parents to participate in school activities.

All teachers interviewed complained about the lack of effectiveness of teacher-in-service in providing guidance with regard to teaching methodology in kindergarten. They asserted that teacher-in-service was only helpful in the preparation of teaching aids such as puppets and posters.

#### Interviews with principals

Interviews were conducted with five principals of the schools in this research. The principals at Thabiso and Thabong Schools had specialized in Early Childhood Education and the principals of the other three principals had a specialized Primary Teacher Diploma. These interviews were conducted in accordance with the interview protocol for the principals (Appendix C). The majority of the principals did not seem to understand the philosophy which underlies kindergartens. Most principals thought that preparing children for school readiness was an appropriate school philosophy. However, the principal of Nthabiseng school indicated that the philosophy of her school was to create a home environment at kindergarten in order to help the children adjust to the school and to instill self-confidence among the pupils. As a result, learning through play was seen as an ideal method through which children's confidence could be boosted.

Teacher to pupil ratios of kindergarten classes are shown in Table 12. The Table shows that Thabo and Nthabiseng Schools had lower teacher to pupil ratios than the other three Schools. The Department of Education in Qwqwa has stipulated a 1:22 teacher-pupil ratio at kindergarten level. Principals indicated that this ratio

is too high. Nevertheless, the actual teacher to pupil ratio was 1:25 in the research.

The majority of principals stated that they were not involved in the hiring of teachers because teachers were hired at the circuit level. The principal at Thabo school said that his school recommended teachers he had interviewed to the circuit. Before teachers were recommended for hiring by the circuit inspectors, qualifications were considered as well as the relevance of their training for the subjects they were to teach. Every principal had set up his or her own procedure to orient newly appointed teachers to the school's expectations.

All principals spoke well about their procedure for evaluating teachers. This was done on a continuous basis by means of class visits as well as inspection of their written work. In order to improve teaching, demonstration lessons organized by subject committees were used and joint preparation of lessons was encouraged in order to help less experienced teachers. However, these evaluation procedures and lesson demonstrations have since stopped as a result of a protest by a teacher's organization. Most principals felt threatened to continue with these evaluations. However, the principal at Nthabiseng continued with the evaluation procedure, and felt that to abandon it would be tantamount to abdication of her duty as the principal.

Principals pointed out that the local teacher-in-service centre was doing little to provide guidance for kindergarten teachers. All the principals complained that subject advisors from the teacher-

inservice centre did not visit schools and therefore did not know about the didactic situation encountered by teachers.

On the question of equipment, principals related that they buy kindergarten equipment with the school's capital budget. The Department of Education provided some equipment such as writing materials for the pupils, and fund-raising was done to augment the schools' finances. The majority of principals charged parents with kindergarten children at their schools a fee of R10 per pupil for the purchase of kindergarten materials. Some principals also asked parents to donate equipment such as toys to the schools. Every school has a finance committee which is in charge of finances of each school as well as a school committee which is responsible to approve activities of individual schools. All school principals mentioned that they made use of each school's finance committee to draw up financial budgets which were in turn approved by the schools committees.

Table 12Teacher-pupil Ratios in Kindergarten classes

<u>School</u>	<u>Teacher (n)</u>	<u>Pupils (n)</u>	<u>Classes (n)</u>	<u>T P R</u>
Thabong	3	83	3	1:28
Thabo	1	19	1	1:19
Thabiso	7	191	7	1:27
Thabang	2	57	2	1:28
Nthabisang	4	70	4	1:18
<u>Total</u>	<u>17</u>	<u>420</u>	<u>17</u>	<u>1:25</u>

T P R =Teacher-pupil Ratio

The nature of parent involvement varied from school to school. At Thabong school, parents were involved in fund-raising, such as participating in school concerts. It was stated that parents were not involved in educational matters at this school. At Nthabiseng school, parents were engaged in providing food for needy children. The principal of Thabo school explained that the parents were less cooperative in participating in school issues. Thabiso and Nthabiseng Schools involved parents in parent-teacher associations and, as a result, parents were actively involved in the affairs of these schools. In encouraging more parent participation, the principals saw the need to educate parents about participation in the school matters.

The problems which the schools encountered with parents was that parents had little or no time to devote to school matters. The majority of the principals pointed out that theft of school equipment was their major concern. They claimed that the security at the schools was not tight and that classroom doors could be easily unlocked because common keys were used to open them. They also felt that a concerted effort with parents and the Department of Education should be taken to address theft at schools.



### Interviews with government officials

One interview was conducted with each of the two Department of Education officials. These interviews were based on the structured interview schedule protocol indicated in Appendix D. On the question of the short-term plan for kindergarten, the first Department official indicated that there was no clear-cut policy which was communicated from the higher administration. With regard to long-term policy, the researcher was referred to the second official. The second official explained that long-term planning for kindergarten education in Qwaqwa was that all circuits should eventually have preschool centres in addition to the kindergarten classes that have been integrated into junior primary schools. At the moment there were three preschool centres in Qwaqwa which were situated in two circuits. He stated further that the Department used to participate in the training of preschool teachers. However, the training for preschool teachers has now been phased out at the local teachers' college in Qwaqwa and thus no further training for teachers was being undertaken by the Department.

On the question which related to encouraging teachers to enroll for Early Childhood Education, the Department official stated that since the diploma for preschool education was phased out at the local teachers' college, there has not been a direct way in which teachers were encouraged to enroll for preschool education.

In response to the question concerning the role of the local teacher-in-service, the official mentioned that the teacher-in-service is supposed to play a role in providing guidance for preschool education. How relevant this education was is a question which the Department has to investigate.

On the issue of parental involvement in preschool education, the official explained that there were no statutory parent bodies established other than the school's committees which were supposed to play a role in the educational matters of individual schools. However, the official indicated that parents' meetings with the Department were encouraged and that the principals of the schools had been given latitude to involve parents in school matters.

On the question about the provision of equipment to schools by the Department, the official stated that the Department was not presently providing equipment for preschool education though the Department used to provide it. The official stated that she was not sure about the problems which has made the Department stop supplying schools with equipment. The official was not sure about the relevance of the equipment which was in the kindergarten classrooms. She was also not sure about the relevance of the curriculum since Qwaqwa Department of Education was not involved in the drafting of the curriculum.

On the question relating to the inspection of preschools, the official indicated that inspection of preschool education, including that of kindergartens, was being done. The subject advisor for preschool education with the assistance of other subject advisors,

is in charge of conducting inspection in preschool centres. The reason for inspection is to ensure that instruction at these centres falls within the Departmental guidelines.

### Observations and use of ECERS

The researcher observed five kindergarten teachers while teaching, each in her respective school. The following aspects were observed:

#### Story-telling.

Most of the stories told were of a religious nature and singing was related to the themes of religious topics. For a lesson which was based on creation, the lesson was preceded by the song "Adama le Eva ba ne ba dula tshimiong ya Edene, Modimo a ba leleka" meaning Adam and Eve were living in the garden of Eden and God chased them away. Story-telling demanded much preparation on the part of teachers and few teachers prepared well for their lessons. During story-telling, there was little participation from the pupils. Reading of stories was not done as most of the schools did not have books.

#### Learning through play

Before a new lesson or activity was introduced, singing was done which served as a transition and provided relaxation for the children. For example, while children were singing, they formed a circle and as they sang one child would get into a circle to demonstrate an action which he/she would like other children to do.

Every child was given a turn to demonstrate an action to be emulated by others. If one child claps her hands, other children will sing while clapping their hands. Teachers taught concepts through play. For example, a teacher would lead a song which related to either a rectangle or a triangle and children would lie on the floor to demonstrate these concepts. To demonstrate a rectangle floor children would lie on the floor in a shape of a rectangle. In some schools left-handed children were forced to use their right hands while they were demonstrating something during play.

#### Younger children

Some schools admitted children who were younger than the official admission age of four years without ascertaining the school-readiness of these children. These children presented problems to the teachers as they did not know how to adjust curriculum to suit these young children. High teacher-pupil ratios in kindergartens restricted teachers from providing individualized instruction and furthermore, they did not have experience in dealing with children with learning problems.

#### Discipline

Some children were noisy and inattentive. The teachers at Thabong and Thabo ignored inattentive children and continued with the lessons. They mentioned that children learn when they wanted to, and they explained that they do not go out of their way to encourage children to learn.

### Concept teaching

The teacher at Thabiso School drew up a house on a chalkboard by means of a triangle, a square, two circles and a rectangle as shown in Figure 1. After this demonstration pupils were requested to draw houses in the same way. The teacher discussed with individual children what they had drawn. For example the teacher would ask a child what he/she had drawn and asked the child to indicate items of his/her drawing.

### Innovative teaching and learning.

The teacher at Thabiso School composed songs to clarify meanings when teaching particular concepts. Children were also asked to compose songs and stories. They were also provided with materials during free play and each pupil was given an opportunity to do what he/she liked. Some children painted while others played with toys. The teacher moved from one child to the other to appreciate each child's work. There was a central activity or main activity which the teacher demonstrated to a few students while others were engaged in free play. The teacher kept on calling small groups of about four students to participate in the main activity and she continued this until every child had received his/her turn. By means of the look and say method, children were asked what they did with parts of their bodies. For an example the teacher started by

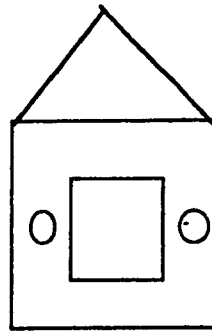


Figure 1

Drawing of a House using Geometric forms

asking "What do we do with our hands?" and the children answered as the teacher introduced different parts of the body. In some schools as children were answering questions, the teacher kept on accepting answers without indicating wrong ones.

The ECERS was used to rate the kindergartens in each of the five schools. The schools were rated on the following criteria: Personal care routines of children, furnishings and display for children, language-reasoning experience, fine and gross motor activities, creative activities, social development and adults' needs. The highest possible score for ECERS is 259. Equipment in the kindergarten was extremely inadequate in most of the schools, except for Thabisang and Nthabiseng kindergartens. Of the five kindergarten classes, Nthabiseng had kindergarten equipment such as toys, creative materials for painting, toys and equipment for pretence as clothes and cookery. In other schools, there were no chairs nor tables for the children to use. All classrooms were not formally designed for kindergarten children and as a result, they were not divided into activity corners for pretend or creative activity. However, some kindergartens improvised to divide the classrooms into activity corners. Table 13 shows that Thabiso and Nthabiseng Schools had the highest ECERS scores.

The results did not confirm the hypotheses that children who had kindergarten experience would achieve higher scores in achievement, self-esteem and mental maturity compared to those children who had not. However, the results confirmed the hypothesis

that children whose kindergarten classes received higher Early Childhood Environmental Rating Scale (ECERS) scores also achieved higher scores in achievement, self-esteem and mental maturity. The interviews with teachers, principals, and government officials provided information which supported the results of the ECERS's scores, and the measures of the achievement, self-esteem and mental maturity of the children. The results established significant effects of achievement, self-esteem, and mental maturity scores according to school. The results also indicated a significant effect of mental maturity according to socio-economic status. There was also a significant interaction effect according to school and type of experience (Kindergarten experience or no kindergarten experience) in self-esteem scores.



Table 13The Scores of Kindergarten classes according to Early Childhood Environmental Rating Scale

	Score	(max. :259)
Thabong	165	
Thabo	157	
Thabiso	192	
Thabang	151	
Nthabiseng	192	

## CHAPTER IV

### DISCUSSION

#### Evaluation of Results

There is renewed interest in the study of kindergarten education. Policy makers, parents and educators in general are interested in research to establish the effectiveness of kindergarten education for those children who have attended kindergarten compared to those who have not. This growing interest in preschool education programs results from various factors, including a growing population of disadvantaged children who are to be educated; high drop-out rates and concerns of relatively low achievement levels of children in general. Implications of recent research that preschool education has positive long-term effects on academic achievement and other variables such as high self-esteem has also rekindled interest in preschool education (Stipek, Daniels, Galluzzo & Milburn, 1992).

The results of this research did not confirm the first two hypotheses proposed in this research: 1(a) Children who have attended kindergarten will achieve higher scores in language, writing and math than those children who have not, and 1(b) Children who have attended kindergarten will achieve higher scores in self-esteem and mental maturity than those who have not. However, the third proposed hypothesis was confirmed by the research, i.e., children with higher achievement scores and higher scores in self-esteem and mental maturity will have attended

kindergarten with higher ratings according to the Early Childhood Environmental Scale than their counterparts (Harms & Clifford, 1980).

To explain why the results did not support the first and second hypotheses (Children who have attended kindergarten will achieve higher scores in language, writing, math, self-esteem and mental maturity than those children who have not was not) one must first of all look at the ages of the children who had kindergarten experience.

The average entry age of children at Sub A (Grade 1) level with kindergarten experience was 5.0 years and that of children without kindergarten experience was 5.4 years. Scrutiny of the children's ages (Table 2) shows that while the majority of kindergarten experience children began school (in Sub A ) when they were even younger than the official entry age of five years, the majority of children without kindergarten education began school after they were five years old. (The kindergarten year is not considered to be an official year of schooling.) Children who had kindergarten experience at Thabo and Nthabiseng schools were younger than the children of the other schools, hence the unimpressive performance of these children in most of the evaluated areas. The reason for their poor performance may be that kindergarten children were subjected to too much pressure to learn while they were not yet developmentally ready for it.

The mean age of the kindergarten experience children of Thabong is to be higher, but one of the kindergarten experience

accounts for the higher age of these kindergarten children compared to those without kindergarten experience. If one excludes the age of this child the mean age of these kindergarten experience children becomes is comparable to those of the other schools. The impressive performance of the children at Thabiso School in all evaluated areas may therefore be accounted for a higher mean age of 5.4 years (the official school entry age) which is what is generally considered to be developmentally appropriate for learning to read and write.

In this research kindergarten children were not assessed as to whether they were developmentally ready to undertake kindergarten education, hence some of them may have been "at risk" children. "At risk" children are those who are found to be not yet academically ready to begin kindergarten education and whose chances of failure are high (Spoedek, Sarancho and Davis, 1991). During the researcher's observation of kindergarten classes, teachers complained about children who were too young and who had difficulty in understanding lessons. During the researcher's observations in one school a child was seen to be crying, and when the researcher inquired as to the possible reason for this, the teacher said that the child was asked to write an aptitude test for beginners, but was too young to be at school and was finding the academic work too difficult. Uphoff and Gilmore (1985), in their review of research literature, mention that when children enter school before they are developmentally ready to cope with the work,

their chances for failure increase dramatically. The authors further state that the older children in Sub A tend to achieve at above average level compared to younger children. They make a strong assertion that the academic problems of young children who were developmentally "unready" at school entrance often last throughout their school careers and sometimes even into adulthood.

A reasonable proposition would be instead of making children ready for kindergarten, schools should make kindergarten ready for the characteristics of young children (Lyons & Smith 1990). But in most schools in this research, children were expected to adapt to the inappropriate practices of the kindergartens. This implies that the learning environments at these schools were not conducive to learning for younger children and therefore it was inappropriate for these kindergartens to have admitted younger children. The study by Hehr and Kennedy (1992) concluded that age is a significant factor in identifying at risk children. But the authors urges the schools to organize programs which will allow maximum learning of disadvantaged children.

High quality kindergartens make more impact on students' achievement than low quality centres. Most schools in the research were not of high quality. The National Association for the Education of Young Children (NAEYC) stresses the importance of teachers' qualifications in establishing high quality centres. This association has established credibility in North America in issues that deal with the education of young children and is commonly used as a yardstick in matters that pertain to preschool education. Because of a critical

shortage of kindergarten teachers in Qwaqwa, there is an average of only one teacher per school who had preschool qualification, while in the same schools, there were many kindergarten classes. The seriousness of the situation in Qwaqwa is aggravated by the fact that some teachers who are qualified in preschool education were not dedicated in their work. One of the principals interviewed in this research commented that some of the teachers who were qualified in preschool education did not act as role models for their colleagues who did not have qualifications in ECE.

Most principals interviewed in the research did not seem to know the philosophy of their schools. A philosophy for a kindergarten prepares the staff to achieve definite goals, and without a well-grounded philosophy one cannot expect good results from a kindergarten. This fact is underscored by the position statement of NAEYC that the major determinant of program quality is the degree to which knowledge of child development is implemented in the program practices (Bredekamp, 1987). Some kindergartens also lacked essential preschool material to develop children's thinking and creative abilities.

In most of the kindergartens, instruction was geared to the whole class instead of the individual. Teachers related that children should learn when they felt like it. The NAEYC makes it clear that the role of the teacher is important in providing meaningful guidance to the child by way of interacting with children and recognizing their individual potential. The statement that the child should learn when he/she feels like it may reflect a "don't

care" attitude on the part of the teacher concerning the learning of the children. In effect, the teacher should be concerned if the child does not feel like learning, because this is important in identifying the learning problem of the child and providing a remedy at an appropriate time (Bredekamp, 1987).

Curriculum was highly structured in most kindergartens: Teachers followed the Departmental guidelines to the letter. The kindergartens were of a traditional type, with one teacher responsible for 20 to 30 children. The modern kindergarten in North America has a ratio of two adults to not more than 20 children per class (Ramsey & Bayless, 1980). The following factors also explain why the kindergartens were of a traditional type: The teacher's role in directing activities was evident in most kindergartens, while less attention was given to the child to explore, to experiment and to inquire. Activities were teacher-directed instead of being child-directed. According to Bredekamp (1987) every teaching context is a unique one, which requires flexibility on the part of the teacher as to what to teach and how to teach.

In the researcher's observations of day care centres in Montreal, it was found that the extent to which parents were involved in the education of their children was a strong determinant of children's academic success. Some of the schools in the research did not consider parents' involvement in educational matters to be essential and hence, there was little parental participation. Henderson's assertion (1988) (based on studies by Scott, & Davies, 1988) was that effective involvement of parents in compensatory

education has not only yielded positive cognitive results, but has indicated how parents can take responsibility and control of their children's education.

In summary, most of the kindergarten children were underage when they started school. The fact that curriculum was not adjusted to them in that there were no individualized instructions given to these children in most of the kindergartens and the fact that these children were not diagnosed to be developmentally ready for school entry may imply that the majority of these children had difficulty in adjusting to the schools' programs. Teachers were not educated to deal with children who had learning problems, and one can therefore deduce that these children received little help to prepare them for school-readiness and thus kindergarten education was ineffective in boosting their achievement, self-esteem, and mental maturity scores.

The third hypothesis was confirmed: Children with higher achievement scores and higher scores in self-esteem and mental maturity will have attended kindergarten with higher ratings according to the Early Childhood Environmental Scale than their counterparts. Thabiso School which had the higher ECERS's score outperformed all other schools in achievement scores and mental maturity. However, this is not true with the case of Nthabiseng School whose kindergarten class also received the same ECERS rating as Thabiso kindergarten class. The mean age of the kindergarten children of this school indicates that the kindergarten experience children were second youngest of all other schools, and



this explains why the children did not perform well in this school. Uphoff and Gilmore (1985) emphasize that children who enter school when they are not yet developmentally ready achieve low marks and are likely to repeat classes. This school is also situated near an orphanage and old-age homes whence come some of its children. Children from old-age homes stay with their grandparents in very small houses which lack facilities, even such as furniture. These grandparents and their grand children suffered from lack of food too. Therefore, this school, even though its children were from a good school, they were exposed to depressing environmental factors which counterbalanced the benefits they received from the school. The unfavorable environmental factors serve to explain why the children from this school did not perform well in self-esteem and mental maturity measures.

There are important findings of this research: There are significant differences in language, writing and math scores according to school. Thabiso School was outstanding in this regard. It had a principal and teachers who had specialized in ECE, and who were motivated in their school work. The school had adequate supply of kindergarten material for arts and crafts, creativity and pretend play. This school also achieved the highest rating on the ECERS (Table 13) which might suggest that high ECERS's scores also correlates with pupils' performance. In the other three schools, Thabo, Thabong and Thabang classrooms received lower scores on the ECERS, their pupils also achieved lower scores on in all the measured areas. For example, (Table 5) Thabo and Thabong pupils

received the lowest scores in language and writing respectively and that Thabang pupils achieved the second lowest scores in all other evaluated areas except in self-esteem. The reason for Thabang pupils to achieve high self-esteem scores might be that children from this school had the highest number of children from high SES than all other schools. It was in these schools (Thabo, Thabong and Thabang) that teachers were less dedicated in their work, and where there was little parental involvement in school activities

The results showed significant differences in mental maturity according to SES and school. These findings are in agreement with the theory of deprivation which states that children of low-income family will often suffer from lack of environmental stimulation which inhibits their development (Orstein,1982). On the other hand, children of middle or upper SES are considered to have an enriched environment of high-quality stimuli which favorably affect their development. Although the overall pupils' performance on the mental maturity test was average, there were 27 pupils (19.7%) who achieved below the lower limit of 85. A possible explanation for this is that most pupils in the research are from low SES families. Most of the African children of this background do not have any experience with paper and pencils before school entry and hence, they are disadvantaged over their peers in the high SES category or those of European background who are exposed to literacy materials.

The results also indicate a significant difference in self-esteem according to school. It is interesting to note that even though the pupils at Thabiso did not achieve the highest self-esteem

scores, they performed better than the other schools in achievement scores and mental maturity. Thabiso School had the highest number of pupils with low SES. Even though Thabang School had the lowest number of children from low SES and also the highest number of children from high SES, they did not perform better than the other schools. This implies that while SES had an effect on the overall performance of pupils, it did not have a significant effect on pupils' results per school. This signifies that the school played a major role in children's performance regardless of the SES of the child. For example children from Nthabiseng School performed better than children from the other schools in most of the measured areas even though they were of the lowest SES background than children of the other schools.

The results showed significant interaction between type of school and type of experience (kindergarten or non-kindergarten) in the self-esteem results. (see Figure 2). In four schools children without kindergarten experience outperformed the kindergarten children while in Thabiso School the kindergarten pupils performed better at Sub A level than children without kindergarten experience. Table 2 shows that Thabiso kindergarten children began kindergarten with a favorable mean age of 5.4 years, indicating that these children were older when they began school which was not the case the kindergarten children from the other schools. In addition, the School had a favorable teaching and learning environment as a result of good teachers and properly used materials for kindergarten. Therefore, these kindergarten children had an

advantage over their counterparts who had not attended kindergarten. However, this is the only school with more kindergarten children than children without kindergarten education. This might also explain the difference.

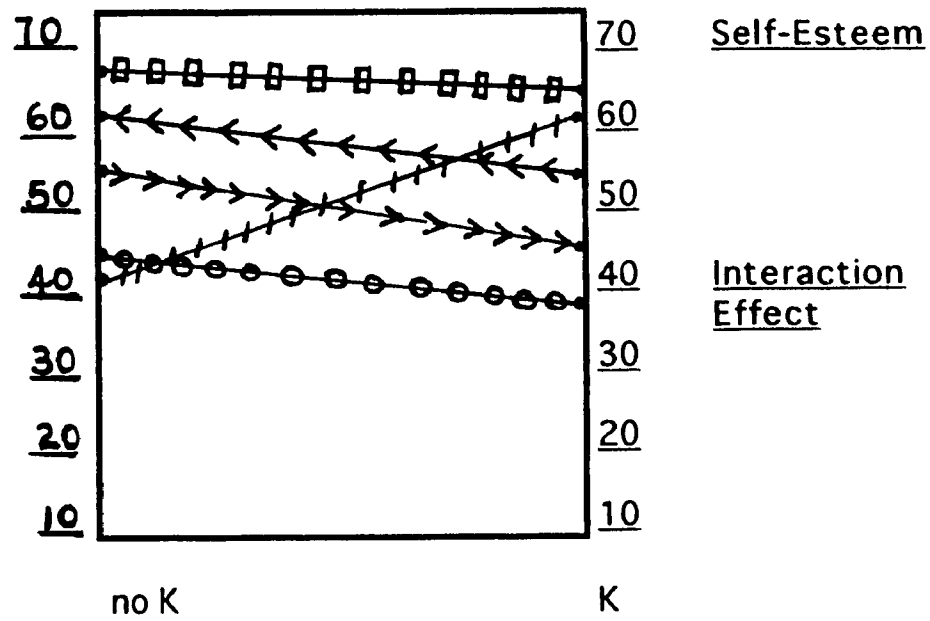


Figure 2  
Interaction of School and kindergarten

- o=Thabong
- =Thabo
- /=Thabiso
- <=Thabang
- >=Nthabiseng

### Directions for Future Research. and Limitations of the Study

Standardized tests and instruments which could be of use in evaluating South African children, need special attention in future research. Tests and measures used in the western world may not be appropriate for use in the South African context. For example, some children did not score high marks in Mental Maturity Test because they were not used to drawing.

More research that will include a sample from all schools which have kindergarten classes in all the circuits in Qwaqwa instead of only one circuit would produce more thorough findings of the educational situation. The present research may therefore not be generalizable to all the regions of Qwaqwa.

A longitudinal study would provide an in-depth analysis of the children's progress. Such a longitudinal study was conducted by Lee, Brooks-Gunn, Schnur and Liaw (1990) comparing "Disadvantaged children attending Head Start, No Preschool and other Preschool Programs" over a two year period (from preschool to Grade 1). However, this study sought to examine the effect of kindergarten experience on school readiness of children.

This study, because of time constraints, did not have control of variables such as achievement scores, ages and socio-economic background of the children who participated in the research. Control of variables that are likely to influence the outcome of the research is underscored by Lyons and Smith (1990) in their study of the effects of extra year programs prior to first grade. The researcher was aware of the situation in Qwaqwa and chose an ex

post facto research design, anticipating the effect of extraneous variables such as age and SES. The researcher, as a result collected information about the children's ages and socio-economic background in order to explain the difference in the results as a result of these factors.

Campbell and Stanley (1963) describe limitations of research of this kind, The Static-Group Comparison Design, as lacking formal means of certifying that the groups would have been equivalent were it not for the effect of the experiment (Kindergarten). They also indicate that experimental mortality is a serious threat to this design. This means the differential drop-out of participants who might have taken part in the research. For example, in this research some kindergarten children had transferred to other schools, and thus they could not be included in the sample.

### Recommendations

As a result of research undertaken, I consider the following factors would improve preschool education in Qwaqwa:

1. There should be a method to identify children who are likely to be at-risk before entry into kindergarten, and they should be targeted for an enriched program. The Department should consider providing school psychologists who are not only involved with the administration of aptitude tests, but who also specialize in dealing with factors that affect the learning of the children in order to help teachers who encounter problems with special needs children. The present system in which there is only one subject advisor for all

preschool centres in Qwaqwa is not effective. Spoedek, Saracho and Davis (1991) state that an increase in the number of preschool centres would also require an increase in the number of Early Childhood Specialists competent in supervising and training teachers, designing and administering programs .

2. There should be an introduction of open kindergarten programs that allow flexibility on the part of the teacher in the choice of content and plan of instruction. Instead of being teacher-centred, kindergarten programs should be child-centred. Bredekamp (1990) emphasizes the acceptance of individual differences among children. This could help teachers identify children with learning problems and provide relevant instruction for them.

3. Relevant teacher-in-service seminars should be organized for kindergarten teachers by the teacher-in-service centre and by subject advisors. Follow-up programs should be initiated to examine the teaching and learning situation at the schools. This would help to provide the teacher-in-service subject advisors with an opportunity to be acquainted with the factors that affect teaching and learning in different school situations.

4. The Department of Education in Qwaqwa should take decisive steps to provide relevant materials for kindergartens and to undertake to educate teachers in Early Childhood Education.

5. Further study should be encouraged by both the Department and the school principals with regard to parental involvement in preschool education. The study conducted by Reynolds (1992) on the effect of parental involvement on school achievement established



that parent activities in school help children to develop more confidence in their ability, acquire greater motivation, and experience a sense of fulfillment that enable them to succeed.

6. Since prekindergarten education has been introduced in some circuits, it should be introduced in others depending on financial considerations. Just as preschool centres have been introduced in two circuits, they could be introduced gradually into other circuits. More years of preschool education could be more effective in preparing children for formal education than the present one year.

6. Effective ways of communicating between all parties involved in education, such as teacher organizations, parents, school administrators and inspectors of schools should be set up. Communication techniques are important in dealing with misunderstanding between parties involved in the education of the child, and increase their understanding of the nature of the children in the learning environment as well as the needs of teachers and children (Spoedek, Saracho & Davis, 1991). Open communication channels between teachers and inspectors could allow the inspectors to communicate policy-decisions to teachers, and teachers on the other hand could relate issues that affect them as workers, and those that affect teaching and learning.

### Conclusion

One of the effective strategies for improving the education situation is by establishing high quality schools. A good school is a school that has a good administration, that has qualified and dedicated staff as well as a sufficient supply of materials used in the didactic situation. Thabiso School stands out as an example of a good school in this research. In fostering good schools, the Department of Education (Qwaqwa) could establish procedures to encourage schools to aspire to high quality. High quality schools should be appreciated for their services and incentives provided for these schools to attain high quality status. By means of newsletters and certificates of acknowledgment of the schools' outstanding results, the Department could create a congenial environment whereupon schools would desire to excel.

A high number of children in this research were from low SES background. This could indicate that the majority of parents in Qwaqwa were of low income. It would be reasonable for the Department to consider providing food at low cost in all preschool centres in order to offset the disadvantage of poor diet of many of the children. Factors such as basic nutrition, health care, family support services have been found to have a strong effect on the performance of children at school (Bredekamp, 1990).

It appeared through interviews with government officials that some senior government officials were not involved in policy-making, even in the areas that concerned their work. This may create resentment on the part of some government officials because

they feel left out of decision-making. Effective means of communicating policy from top management to middle and lower management is ideal in the administration of education. Therefore, this issue should be given priority in the formulation and implementation of educational policy by the Qwaqwa Department of Education.

The inability of this study to confirm the hypotheses supporting the effect of kindergarten education should not be construed as a weakness of this research, but rather, be considered as providing grounds for the ongoing argument on the effectiveness of kindergarten education. A meta-analysis (Shepard, 1989) investigating the effect of extra-year programs revealed that the majority of carefully controlled studies did not confirm the effect of extra-year on children who had an additional year of preschool education compared to those children who did not have one. A recent study conducted (Lyons & Smith, 1990) on the effect of an extra-year program for kindergarten children compared to those that did not receive an extra-year did not find substantial significant effects of extra-year program, but that the benefits were limited to a month or two with the children of the same grade. These studies focused primarily on the effectiveness of kindergartens on cognitive development. The present study shows the importance of a number of factors which are complementary to the kindergarten experience, in particular, the quality of the kindergarten.

In this research the first two hypotheses were not confirmed because of the following factors: The very young age of the

kindergarten children, the poor quality of many of the kindergarten classes, the lack of essential kindergarten materials to promote learning and teaching, the lack of parental involvement and the lack of a clear kindergarten philosophy and Departmental policy upon which kindergarten education was based. However, the third hypothesis was confirmed and supports the findings in the literature on the impact of the quality of the kindergarten environment. For a kindergarten to be of a high quality, various factors must complement each other, such as teachers' qualifications and dedication to their work, a well-grounded kindergarten philosophy, properly used kindergarten materials and parental involvement in school activities.

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Appendix A

Behavioral Academic Self-Esteem Questionnaire

Appendix A

	Never	Seldom	Sometimes	Usually	Always
	1	2	3	4	5
<b>I. Student Initiative</b>					
1. This child is willing to undertake new tasks.	1	2	3	4	5
2. This child is able to make decisions regarding things that affect him or her, e.g., establishing goals, making choices regarding "likes" and "dislikes" or academic interests.	1	2	3	4	5
3. This child shows self-direction and independence in activities.	1	2	3	4	5
4. This child initiates new ideas relative to classroom activities and projects.	1	2	3	4	5
5. This child asks questions when she or he does not understand.	1	2	3	4	5
6. This child adapts easily to changes in procedures.	1	2	3	4	5
<b>Student Initiative Total</b>	<hr/>				
<b>II. Social Attention</b>					
7. This child is quiet in class, speaks in turn, and talks appropriately.	1	2	3	4	5
8. This child talks appropriately about his or her school accomplishments.	1	2	3	4	5
9. This child cooperates with other children.	1	2	3	4	5
<b>Social Attention Total</b>	<hr/>				
<b>III. Success/Failure</b>					
10. This child deals with mistakes or failures easily and comfortably.	1	2	3	4	5
11. This child takes criticism or corrections in stride without overreacting.	1	2	3	4	5
<b>Success/Failure Total</b>	<hr/>				
<b>IV. Social Attraction</b>					
12. This child's company is sought by peers.	1	2	3	4	5
13. This child acts as a leader in group situations with peers.	1	2	3	4	5
14. This child refers to himself or herself in generally positive terms.	1	2	3	4	5
<b>Social Attraction Total</b>	<hr/>				
<b>V. Self-Confidence</b>					
15. This child readily expresses opinions.	1	2	3	4	5
16. This child appreciates his or her work, work products, and activities.	1	2	3	4	5
<b>Self-Confidence Total</b>	<hr/>				
<b>Total BASE Score</b>	<hr/>				

**Appendix B**  
**Structured Interview with Kindergarten Teachers**



Interview with teachers of preschool centers .

The purpose of the interview is to establish the level of involvement as well as dedication of the teacher to his/her work.

1. What are your instructional objectives for short-term and long-term purposes?
2. Do you regard your teaching task as a challenge? Why?
3. What follow-up do you make to children who need more attention than others?
4. How do you plan and vary your teaching?
5. How do you go about planning for a "circle"?
6. Are there any programs or activities in which you seek the assistance of the parents? What is the advantage of parent involvement if there is any?
7. In what way is teacher-in-service centre helpful didactic matters?

**Appendix C**  
**Structured Interview with School Principals**

### Interview with directors/principals of kindergartens

The purpose of this interview is to seek information regarding the administration of the preschool centres as well to establish the objectives of these centers.

The following questions will be asked to directors:

1. What is the philosophy of your program?
2. Did your training prepare you for directing this program?
3. What is the actual number of teachers as well as that of students in the program? Is the ratio between the students and the teachers advantageous for the program?
4. What educational factors or backgrounds are considered in the hiring of teachers?
5. Is there any mechanism setup by the institution to evaluate teachers on continuous basis? What is the motive for this evaluation? what is the follow up.
6. How are teachers expected to cope or adapt in meeting the students needs? Is there any inservice-training offered to teachers?
7. How do you receive equipment for your institution?
8. How do you receive budget for your institution?
9. Given your budget , how do you plan for expenses? (capital expenditure, operating expenses)
10. How are the parents involved in making contribution to the program?  
What problems are presented by the parents?
11. Are there any problems do you encounter in this institution?  
If there are other , how do you go about in providing solutions to these problems?

**Appendix D**  
**Structured Interview with Senior Government Officials**

Interview with the Department of Education officials Senior Subject Advisors

What is the government's short and long term plan with regard to kindergarten education?

1. In what way does the Department encourage teachers to enroll for Early Childhood Education?

2. Is there any provision to upgrade the present teachers who teach kindergarten children without the necessary qualifications in this area?

3. What role can inservice -training play in providing guidance on preschool education?

4. In what way does the department see the role of parent' involvement in preschool education? Are there any steps taken to ensure meaningful participation of parents in preschool education?

5. What is the government policy to supply or ensure that relevant facilities are available at preschools such as fine and gross motor equipment.

6. How does the department undertake inspection of kindergartens with regard to:

- i) the way teachers do their work,
- ii) the relevance of the curriculum, and
- iii) the suitability of the equipment used?

**Appendix E**  
**Early childhood Education Questionnaire**

APPENDIX EECE QUESTIONNAIRE : KINDERGARTEN TEACHERS

Do not write your name anywhere in this questionnaire as your anonymity will be strictly protected.

DIRECTIONS : Please make a cross ( X ) to an item which truly reflects your position with regard to kindergarten . Answer in either "Yes" or "No" or mark your answer in an appropriate column.

The following four questions relate to demographic information

1. Indicate your gender.

<b>MALE</b>	<b>FEMALE</b>

2. In which age group are you?

<b>BETWEEN 22-29</b>	<b>BETWEEN 30-39</b>	<b>BETWEEN 40 -60</b>

3. Mark your appropriate qualification

<b>STD</b>	<b>PTC + 10</b>	<b>PTD</b>	<b>DIP. IN E C. E</b>

4. Indicate your experience in working with kindergarten children ?

<b>less than three years</b>	<b>more than three years</b>

5. Indicate how often do you attend inservice-training with regard to guidance in childhood education.

<u>monthly</u>	<u>quarterly</u>	<u>annually</u>

The following questions relate to philosophy and methodology in preschool education

6. Does your school have clearly stated objectives of what it wants children to achieve in kindergarten?

<u>YES</u>	<u>NO</u>

7. Is the philosophy of your kindergarten clearly communicated to you?

<u>YES</u>	<u>NO</u>

8. Indicate what describes the teaching in your school.

<u>1.</u>	<u>2</u>	<u>3</u>
<u>The content is adjusted to the child</u>	<u>The child must master the content</u>	<u>the child learns when he/she wants</u>



9. Indicate the kind of instruction you use.

It is directed to the whole class	It caters for individual differences of the children

10. Do the children work and play in groups?

YES	NO

11. Is there ongoing evaluation of children's progress.

YES	NO

12. Does your kindergarten allow or encourage parent participation

YES	NO

13. Do children work and play in groups?

YES	NO

14. Is there an ongoing evaluation of the children's progress?

YES	NO

**Appendix F**  
**Instructions for Sub A Pupils**

Appendix FGood-enough-Harris Drawing TestDale B. Harris (1963)Instructions for Sub A Children ( NB. This was done in Sesotho)

Good day children. I am a visitor to your school and I want to see each child's drawing of a picture of a complete human being, either a man, woman, or a child. Make the best picture you can do. Take your time and work very carefully.

Thank you, you can start with your drawing.

**Appendix G**  
**Instructions for Sub A Teachers**

Appendix GBehavioral Academic Self-Esteem. A Rating Scale.(1982)Stanley Coopersmith &Ragnar Gilberts.Instructions

As having been a class teacher of Sub A (Grade 1), you are hereby requested to rate the frequency of each child's behavior in the items listed below on the questionnaire (Appendix A). For example, if you are to rate the frequency at which the child is willing to undertake a new task which is an item appearing under students' initiative, for the lowest frequency you are to circle 1 (never) and for the highest frequency you are to circle 5 (always). There are also 2, 3, and 4 to be circled depending on the frequency of the behavior.

**Appendix H**  
**Early Childhood Environmental Rating Scale**

Appendix H

Name of Facility		Room	Age of Children youngest to oldest		Name of Rater	Position of Rater	Date
1. Greeting/leaving 1 2 3 4 5 6 7		3. Nap/rest 1 2 3 4 5 6 7		5. Personal grooming 1 2 3 4 5 6 7		7. or ♦ 7. Furnishings (learning) 1 2 3 4 5 6 7	
2 or ♦ 2. Meals/snacks 1 2 3 4 5 6 7		4. Diapering/toileting 1 2 3 4 5 6 7		Total Personal Care (Items 1-5)		8. Furnishings (relaxation) 1 2 3 4 5 6 7	
6. Furnishings (routine) 1 2 3 4 5 6 7		10. or ♦ 10. Child related display 1 2 3 4 5 6 7		9. Room arrangement 1 2 3 4 5 6 7		11. Understanding language 1 2 3 4 5 6 7	
Total Furnishings/display (Items 6-10)		12. Using language 1 2 3 4 5 6 7					

FAMILY CHILD DEVELOPMENT ENVIRONMENT RATING SCALE

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Appendix H

<p>13. Reasoning 1 2 3 4 5 6 7</p>	<p>15. Fine motor 1 2 3 4 5 6 7</p>	<p>17. GM space 1 2 3 4 5 6 7</p>	<p>19. GM time 1 2 3 4 5 6 7</p>	<p>21. Art 1 2 3 4 5 6 7</p>	<p>23. Blocks 1 2 3 4 5 6 7</p>
<p>14. or <del>24.</del> Informal language 1 2 3 4 5 6 7</p>	<p>16. Supervision (FM) 1 2 3 4 5 6 7</p>	<p>18. GM equipment 1 2 3 4 5 6 7</p>	<p>20. Supervision (GM) 1 2 3 4 5 6 7</p>	<p>22. Music/movement 1 2 3 4 5 6 7</p>	<p>24. Sand/water 1 2 3 4 5 6 7</p>
<p>Total Language/reasoning (Items 11-14)</p>	<p>Total Fine/gross Motor (Items 15-20)</p>				<p>—</p>

Appendix H

<p>25. Dramatic play 1 2 3 4 5 6 7</p>	<p>26. Schedule (creative) 1 2 3 4 5 6 7</p>	
<p>27. Supervision (creative) 1 2 3 4 5 6 7</p>	<p>Total Creative Activities (Items 21-27)</p>	<p>28. Space (alone) 1 2 3 4 5 6 7</p>
<p>29. Free play 1 2 3 4 5 6 7</p>	<p>30. Group time 1 2 3 4 5 6 7</p>	<p>31. Cultural awareness 1 2 3 4 5 6 7</p>
<p>32. Time 1 2 3 4 5 6 7</p>	<p>33. Exceptional provisions 1 2 3 4 5 6 7</p>	<p>Total Social Development (Items 28-33)</p>
<p>34. Adult personal area 1 2 3 4 5 6 7</p>	<p>35. Adult opportunities 1 2 3 4 5 6 7</p>	
<p>36. Adult meeting area 1 2 3 4 5 6 7</p>	<p>37. Parent provisions 1 2 3 4 5 6 7</p>	<p>Total Adults (Items 34-37)</p>

Appendix H

CIRCLE THE TOTAL SCORE FOR EACH AREA.  
CONNECT THE CIRCLED NUMBERS WITH STRAIGHT LINES.

Area	Name of Facility		Room	Date of Rating			
	1st	2nd		3rd	1st	2nd	3rd
Personal Care Routines	36	35	28	42	48	42	28
Furnishings Display	30	30	25	40	45	40	25
Language Reasoning Experiences	20	20	20	26	25	20	15
Fine/Gross Motor Activities	18	15	15	16	20	20	10
Creative Activities	10	10	10	10	15	15	10
Social Development	5	5	5	5	10	10	5
Adult Needs	5	5	5	5	5	5	5

Appendix I  
Permission for Conducting Research